

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

2.47
Illustrated =
Descriptive

1901
INDEXED
CATALOGUE



FRUIT AND
ORNAMENTAL
TREES

LIBRARY
RECEIVED
★ SEP 24 1920 ★
U. S. Department of Agriculture

Grape Vines and Small Fruits

Shrubs,

Plants,

Roses, &c.



GEO. T. TIPPIN
J. W. TIPPIN

Springfield (Nichols) Nurseries,

TIPPIN BROS., Proprietors.

Office and Grounds
Three Miles West of Springfield,

NICHOLS, MISSOURI.

Our Nurseries are Inspected Annually
by the State Entomologist.

STECHER AND CO. BOSTON



New Western Catalogue

—OF—

Fruit, Shade and Ornamental Trees, and Evergreens
Small Fruits, Grape Vines, Shrubs, Plants, Roses, Etc.

PROPAGATED AND GROWN AT THE

Springfield ===== (NICHOLS) ===== **Nurseries**

Tippin Bros., Proprietors.

Office and Grounds, 3 Miles West of Springfield,
Nichols, Missouri.

=====

TREES FOR COMMERCIAL ORCHARDS A SPECIALTY.

=====

1901.
DIXON BROS. PRINTERS,
SPRINGFIELD, MO.

Notice to Customers.

Orders should be sent in as early as possible, that there may be plenty of time for shipping long distances when necessary.

Buyers ordering by letter should write out the order plainly, *on a separate list*, and not in the body of the letter. It will prevent mistakes in the hurry of the packing season.

Give plain and explicit shipping directions. When none are given, we forward according to our best judgment, but in no case do we assume any responsibility, after the delivery of stock in good condition to the forwarders.

All orders from unknown correspondents must be accompanied by the cash or satisfactory references.

If the varieties of fruit ordered cannot be supplied, others equally as good, and ripening about the same season, will be substituted, unless ordered to the contrary.

We recommend that purchasers leave the selection of varieties with us, as far as possible, merely stating the proportion of summer, fall, and winter fruit wanted, as our experience enables us to select such sorts as are adapted to the locality.

Immediate notice should be given us of any error in filling out an order, so that we may at once rectify the mistake, or give a satisfactory explanation.

As our nursery stock is particularly adapted to the Western climate, grown here, and under our own supervision, we hazard nothing in saying that it will prove greatly to the advantage of fruit growers and planters to plant our well-tested and carefully grown fruit, and other trees, in preference to the imported stock offered so largely by dealers. Our motto is, "Western Stock for Western Planters." Any information on this subject will be cheerfully given. Correspondence solicited.

SPRINGFIELD (NICHOLS) NURSERIES.

GEO. T. TIPPIN,
J. W. TIPPIN.

Introductory.

We take pleasure in presenting a new edition of our Descriptive Catalogue. It has been carefully revised and corrected. And while we carry many varieties in stock that we have not presented in this list, we have endeavored to give a correct description of the varieties best adapted to this locality for general planting, and especially for commercial orchards. By studying and closely observing the different varieties of fruits that have been fruited in this, the Ozark Range, we are enabled to select out of a multitude of kinds, those varieties which are the most profitable to plant. In presenting this Catalogue to our customers, and the fruit growers of this section, we have only given the description of the varieties we can recommend.

We shall always aim to include in our assortment all such varieties of Fruit Trees as are known to be of value for family use or for market.

We give our personal attention to the taking up and packing of our stock, so that persons at a distance, ordering trees, can rely upon obtaining a good selection.

We hope, by a system of fair and liberal dealing and strict attention to our business, to continue to merit and receive a share of the patronage of the fruit-loving and tree-buying public.

It is a deplorable fact that the young men of our rural districts, the farmers' sons, have become dissatisfied with the monotony and routine of ordinary farm life. They are restless and uneasy in their present situations, and are looking with longing eyes upon the imaginary attractions and excitements of our great over-crowded cities. They are strongly tempted, by wonderful stories of wealth without labor, to throw themselves into the tide of speculation which threatens to overrun the whole land. We suggest a remedy for this state of things, and one which we believe will commend itself to all thoughtful men. Let the farmer say to his sons, "Let us give our employment more life and variety. Take a portion of the farm, as much as you like, plant an orchard of fruit trees, a vineyard, and a plantation of currants, berries, etc., for market. Ride about the country, visit and consult with the nurserymen and fruit grovers as to the best varieties to plant, how to cultivate and gather the fruit, the best methods of packing, shipping, marketing, etc., for you will find that they have no secrets, and will be glad to give you any information in their power."

To the ladies, also, we would say, here is an inviting field of labor for

you, and we are glad to know that many are already awakening to this fact. Foreigners tell us that our women are too little in the open air. The study and practice of Horticulture might become a source, not only of profit, but of health and constant enjoyment in the hands of any lady of refinement and culture.

We would not tempt the uninitiated with the promise of a large fortune in a few years, and with no labor nor trouble; nor do we believe that for the development of all that is noble and good in humanity, this is best. But we do say that the business of fruit growing, conducted with energy, perseverance and intelligence, will bring an ample and sure reward.

No person is willing to engage in extensive planting without being fully satisfied as to the success he will be likely to obtain. In order to present reliable information on this point, we shall, in the different sections of this Catalogue, cite some instances of profitable culture that have come to our knowledge.

Good cultivation, by which we mean keeping the ground at all times mellow and free from weeds, together with thorough drainage, either natural or artificial, is absolutely necessary, in our opinion, to success. This, with judicious pruning, and proper selection of varieties suitable for the locality, in nearly all portions of the United States, produces gratifying results.

HINTS ON PLANTING.

Select thrifty young trees, rather than old or very large ones. The former bear transplanting better, can be more easily trained to any desired shape, and eventually become more valuable.

THE SOIL

For Fruit Trees must in all cases be dry, either naturally or made so by draining. A rich loam is always most desirable, but by judicious treatment both very light and very heavy soils are available.

PREPARATION FOR PLANTING.

Pulverize twelve or eighteen inches by repeated plowing and sub-soiling, but when grass land must be used, remove the turf from a circle four or five feet in diameter; keep the space mellow and free from weeds. Make the hole larger than is necessary to admit all the roots in their natural position, and throw out the surface and sub-soil in separate piles.

When your trees arrive, prune roots liberally and cut back the last growth of top to four or five buds, except in fall planting, when the top pruning may be deferred until the spring following. If not ready to plant at once, "heel in" by opening a trench deep enough to admit all the roots, and set the trees therein as close together as they can stand, being careful

to tramp the dirt close about the roots. Take up again as wanted. If ready to plant, keep the roots shaded or wet. Some planters "puddle" their trees by dipping the roots in a paste of mud and water.

PLANTING.

Round up the bottom of the hole with surface soil, so that the tree will stand no deeper than it did in the nursery, except the Dwarf Pear, which must be deep enough to cover the Quince stock on which it is budded, two or three inches. Work the soil around and under the roots with the hand, and when well covered tramp hard (if not too moist). Set the tree as firm as a post, but leave the surface filling (of the poorer soil) light and loose. Trees thus set will need no staking unless quite tall. Never use manure in contact with the roots.

When planted in the fall, keep earth around the trunk a foot high or more, to remain during the first winter only, as a protection against frost and mice.

MULCHING.

Covering the ground with coarse manure, straw, marsh hay, or other vegetable refuse, during the first summer, after cultivating season, will effectually prevent injury from drouth. Remove in spring again in order to cultivate.

INJURED TREES.

If trees are received in a frozen state, place the package unopened in a cellar away from the frost and heat until thawed out, and then unpack. If dried from long exposure, bury entirely in the ground, or place in water from twelve to twenty-four hours.

Minute details of the management of fruit trees, etc., will be found in standard works on Horticulture. Some general hints are given under the various headings of this Catalogue.


HOW TO WINTER TREES PROCURED IN THE FALL.

The practice of procuring supplies of trees in the fall is becoming more and more general as each season demonstrates its wisdom. It is a more favorable time than spring because of the cooler weather and the lighter pressure of business with nurserymen, the freighting companies, and the planter. Even when fall planting is not desirable by reason of the severity of the climate, the stock may be *procured* in the fall, and thus be on hand for the opportune moment in the spring. To insure success you have only to get the trees before freezing weather, and bury them in the following manner: Choose a dry spot where no water will stand during the winter, and no grass near it to invite mice. Dig a trench, throwing out enough

dirt to admit one layer of roots below the surface, and place the trees in it, inclined to an angle of forty-five degrees or more. Widen the trench, throwing the soil among the roots in position; place another layer in the trench, reclining the tops on the others, and so on until all are in the trench; then finish by throwing up more soil until the tops of the trees are nearly or quite covered. It is also well to bank up the earth around the sides to insure more thorough protection. Care should be taken to fill solid all the interstices among the roots. In the spring the roots will be found to have formed the granulations necessary to the production of new spongioles, and when planted at the proper time will start to immediate growth.

If the trees are frozen when received, they should be buried immediately in the earth, tops and all, and allowed to thaw in this condition.

PLANT YOUNG TREES.

 We cannot too strongly recommend to our customers the procuring of young trees, especially for orchard planting, instead of selecting the largest that can be had, to secure a more immediate effect. Young trees cost less at the nursery, also in freight, handling, and planting; they can be taken up with more perfect roots, and will become sooner established in a new location. They can also be more readily trained to any desired shape. The largest and most successful planters invariably select young, thrifty trees as the surest in the end to give thorough satisfaction.

For small grounds, or street planting, when it is necessary to make a show as soon as possible, large trees are often desirable, and when handled with care should do well, but with the general planter the average of loss will be much less, and both time and money will be saved if young trees are selected to commence with.

DISTANCES FOR PLANTING.

Standard Apples,	30 feet apart each way.
Standard Pears and strong growing Cherries,	20 " " " "
Duke and Morello Cherries,	18 " " " "
Standard Plums, Apricots, Peaches, Nectarines,	16 to 18 " " "
Dwarf Pears,	8 to 10 " " "
Dwarf Apples,	6 to 8 " " "
Grapes,	rows 6 to 10 feet apart; 7 to 10 feet in rows.
Currants and Gooseberries,	3 to 4 feet apart.
Raspberries and Blackberries,	3 to 4 by 5 to 7 apart.
Strawberries, for field culture,	1 to 1½ by 4 to 5 apart.
Strawberries, for garden culture,	1 to 2 feet apart.

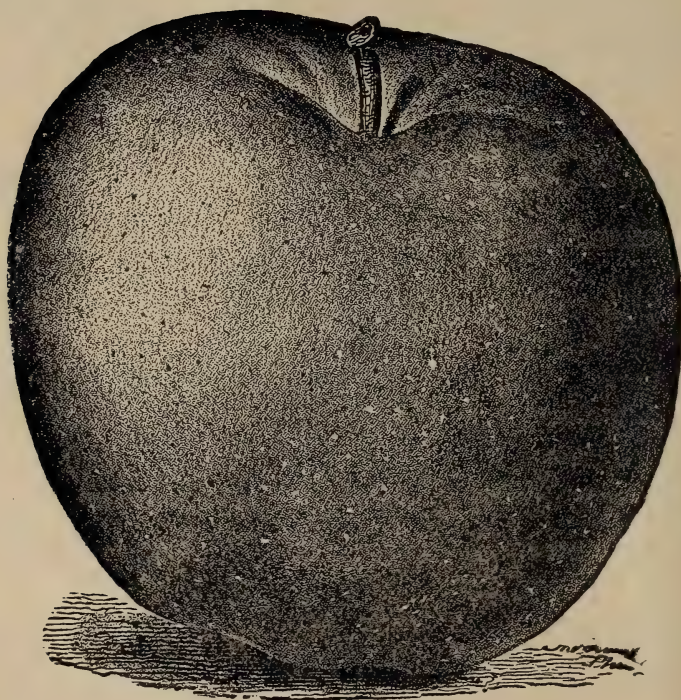
NUMBER OF TREES ON AN ACRE.

30 feet apart each way,	50	10 feet apart each way,	435
25 " " " "	70	8 " " " "	680
20 " " " "	110	6 " " " "	1210
18 " " " "	135	5 " " " "	1745
15 " " " "	205	4 " " " "	2725
12 " " " "	300	3 " " " "	4840

RULE.—Multiply the distance in feet between the rows by the distance the plants are apart in the rows, and the product will be the number of square feet for each plant or hill, which, divided into the number of feet in an acre (43,500), will give the number of plants or trees to the acre.

Fruit Department.

APPLES.



PAYNE'S KEEPER.

We introduced this valuable apple in 1889. Like many good things, it took time to prove its merits. Last year the first commercial orchards planted of Payne's Keeper bore their first crop, and was most satisfactory. Mr. Henry Scholten of Springfield, who has 700 trees bearing, will plant largely next spring.

The first fruit, both in importance and general culture, is the apple.

Its period, unlike that of other fruits, extends nearly or quite through the year. By planting judicious selections of summer, autumn and winter sorts, a constant succession can be easily obtained of this indispensable fruit for family use.

There is no farm crop which, on the average, will produce one-fourth as much income per acre as will a good apple orchard. As it takes from six to eight years for an orchard to come into bearing, some people hesitate to plant, regarding the time and expenses as in a great measure lost. In reply to this we would quote the remarks made by O. C. Chapin, of East Bloomfield, N. Y., to J. J. Thomas. He said that he considered the yearly growth of each apple tree planted in his immense orchard of over 150 acres to be worth fully one dollar before they commenced bearing. He has had experience of nearly half a century, and he says that he considers this a low estimate. At fifty trees per acre, this would make a yearly increase of value of fifty dollars per acre, which no doubt is quite within the mark.

An acre of good orchard is worth, in nearly all parts of the country, from five hundred to one thousand dollars, and is the best kind of an investment at those prices, one or two years' crops frequently paying that amount. The price paid for the fruit is steadily on the increase, and there is no indication that it will ever be as low in the future as in the past. The wonderful growth of our cities and towns, in wealth and population, will always give a market at prices highly satisfactory to the producer.

If apples are planted at the rate of fifty trees per acre, rows of peach trees can be planted between the apples, which, growing more quickly than the apple trees, soon protect them from the winds, and thus are a great benefit to them. After eight or ten years of productiveness, as the space is needed for apples, the peach trees may be removed, leaving the orchard better for the protection, and at the same time having yielded the planter a large return for his trouble.

RUSSIAN APPLES.

The few Russian apples, which are of great value, are becoming very old, and have been in our leading nurseries for half a century. They are the Yellow Transparent, Red Astrachan, Alexander, Tetofsky, and Duchess of Oldenburg, while many so-called "Russian" are natives of Germany or the Northwestern States. The Red Bietigheimer is from Wurtemberg, the Pewaukee, Wealthy, and Walbridge from Minnesota and Northern Iowa, and all the more valuable for it, as they are suited to the climate. Remember, "Western Trees for Western Planters!"

SUMMER.

American Summer Pearmain. Medium, oblong; striped and dotted with red; tender, juicy and rich; a slow grower; good bearer. August.

Astrachan, Red. Large, roundish, nearly covered with deep crimson, overspread with a thick bloom; juicy, rich, acid, beautiful. The tree is a vigorous grower, with large foliage, and a good bearer. July.

Benoni. Medium size, nearly round; deep red, with a rich flavor. Tree vigorous and productive. July.

Carolina Red June. Medium size, oval; deep red, flesh white and tender, sub-acid. Tree erect, good grower, productive. Early bearer, good in the West. July.

Duchess of Oldenburg. A large, beautiful Russian apple, roundish, and streaked red and yellow; tender, juicy and pleasant. A kitchen apple of best quality, and esteemed by many for dessert. Tree a vigorous and fine grower, and a young and abundant bearer. August. Succeeds well in the Northwest, where most varieties fail.

Early Harvest (Yellow Harvest). Medium to large, pale yellow; fine flavor. Tree a moderate, erect grower, and a good bearer. A beautiful and excellent variety for both orchard and garden. Middle to end of July.

Keswick Codlin. Large, conical; tender, juicy, acid, excellent for cooking. Tree erect, vigorous, productive, and early in bearing. July to October.

Primate. Above medium, straw color, tinged with blush; tender, fine-grained, juicy, and sub-acid. A vigorous grower and abundant bearer. Ripens July and August. One of the very best apples grown.

Sweet Bough. Large, pale greenish-yellow, tender and sweet. Moderate grower and good bearer. Last of July.

Sweet June, or High Top Sweet. An excellent early sweet apple, ripening gradually from 10th of July to middle of August. Pale greenish-yellow, medium size, round; tree very productive; fine for table and cooking, perfectly tender. July.

Summer Queen. Medium to large, roundish, surface yellow, blotched and streaked with red, flesh yellow and tender, with an acid, aromatic flavor. July and August.

Sops of Wine. Medium size, oblong, red; flesh white, often stained; mild and pleasant; productive. July and August.

AUTUMN.

Bailey's Sweet. Large, deep red, tender, rich, sweet. Good bearer, but the tree is apt to be tender. October to November.

Dyer (Pomme Royale). Rather large, pale yellow, with a brownish blush next the sun, tender, juicy, and fine flavor. August and September.

Fall Pippin. Very large, yellow, tender, juicy and rich. Tree vigorous, fine in all localities. September.

Fameuse (Snow Apple). Medium size, roundish, oblate, whitish ground, striped with deep red; flesh very white, juicy and pleasant. October and November.

Fall Queen. (Buckingham). Large to very large, oblate, greenish yellow

striped with dull red. Tree productive and hardy; fruit very tender, juicy and excellent. October to January.

Lowell (Orange, Tallow, or Greasy Pippin). Large, oblong, skin oily, pale yellow, brisk, juicy, rather acid flavor. Good for table and cooking. August.

Maiden's Blush. Medium size, flat, quite smooth and fair, pale yellow, with beautiful red cheek; tender, sprightly, pleasant acid flavor. Vigorous grower and good bearer. August and September.

Rambo. Medium, yellowish, streaked with dull red and somewhat dotted, mild, tender and good. Fine grower, productive. September to November.

WINTER.

Clayton. Large, conical, greenish-yellow, covered, striped and splashed with dull red; flesh yellow, breaking, sub-acid. Productive and hardy. December to February.

Ben Davis (New York Pippin, Kentucky Red Streak, etc.) A large, handsome, striped apple of good quality. Tree very hardy, vigorous, and productive. Late keeper, highly esteemed in the west and Southwest.

Fallwater (Fornwalder, Tulpehocken). Very large, globular, yellowish green, dull red cheek; juicy, crisp, pleasant sub-acid flavor. Tree a strong grower, very productive, even while young. November to January.

Fullerton Favorite. Tree a strong and upright grower. Fruit nearly as large as Ben Davis, dark red, covered with white specks, sub-acid to sweet, very rich. A good keeper.

Grimes' Golden (Grimes' Golden Pippin). An apple of the highest quality, equal to the best Newtown. Medium to large size, yellow. Tree hardy, vigorous, productive, grown in Southern Ohio. December.

Huntsman's Favorite. Originated in Johnson county, Missouri. Very large, golden yellow, with bright red cheek, nearly sweet, fine flavor, very aromatic. One of the best and highest selling market apples. Tree very healthy and productive. November to April.

Ingram. Originated in Greene County, Missouri. A seedling of the Janet. Greenish yellow, striped with red, medium size, full and regular bearer, sub-acid. Keeps till May.

Jonathan. Fruit medium, roundish; skin yellow, nearly covered with dark or lively red; fine grained, very tender and finely flavored. Tree slender and spreading, with light colored shoots. One of the best. November to January.

Lansingburgh. Medium; greenish yellow, with red cheek; good flavor, but flesh rather dry and hard. Very long keeper, and a good shipping apple late in the season, which is its chief recommendation. Tree a good grower and very productive. February to May.

Limber Twig. Medium to large, yellow, striped with crimson, sub-acid. Good keeper. December to April.

Missouri Pippin. Large, oblong, bright red, with numerous gray dots, very handsome and of fair quality; an early and very abundant bearer, and a very profitable orchard fruit. December to April.

Newtown Pippin. One of the very best apples as to quality, very juicy, crisp, and highly delicious flavor. Tree a light grower while young; requires manure for the best fruit. Fine keeper. December to May.

Northern Spy. Large, roundish, slightly conical, ribbed, striped, with the sunny side nearly covered with purplish red; flesh white and tender, with a mild, sub-acid, rich and delicious flavor. The tree is a strong upright grower, and forms a very compact head, which should be kept open by pruning, so as to admit the air and light freely. November to December.

Pennsylvania Red Streak (Winter Wine). Large, oblate, greenish yellow, striped with lively red; flesh tender, sprightly sub-acid, very good. Tree hardy and productive. November to December.

Rawle's Janet. Medium, roundish, ovate, greenish yellow, striped with red, crisp, rich, juicy. One of the best keepers in the South and Southwest.

Rome Beauty. Large, yellow, shaded with bright red; flesh yellowish, tender, juicy, sub-acid. Moderate grower. November to February.

Robinson Pippin. Originated in Greene county, Missouri. Has been tested for many years, and is proving to be one of the best commercial sorts. Color, bright yellow, medium to large, rich sub-acid flavor. A good keeper.

Roman Stem. Tree a strong, upright grower. Fruit, yellow with bluish cheek, good size and flavor. Keeps till March.

Red Winter Sweet. An old sort well known, and should be in every family orchard.

Small Romanite (Carthouse Gilpin). An annual and great bearer, and a long keeper. Bright red, medium, fair quality. January to May.

Stark. Tree a very strong upright grower. Large, roundish, greenish yellow, splashed and covered with light and dark red. Very good. December to April.

Seek-no-Further (Westfield). Medium to large, slightly russeted, with dull red stripes; tender, rich, spicy and fine; good grower and bearer. October to December.

Smith's Cider. Medium, striped; flesh tender, juicy, sub-acid; very popular in Pennsylvania and Western States. December to February.

Spitzenburg, Esopus. Medium to large, deep red; flesh yellow, crisp, sub-acid, highly flavored. Tree a light grower in the nursery, but bears and grows well transplanted in rich soil. November to February.

White Winter Pearmain. Oblong, bright yellow, sometimes with brownish blush; sweet, highly flavored, and fine, good keeper; but the tree is rather unhealthy, and the fruit liable to scab. January to April.

Wealthy. A native of Minnesota, where it has proved perfectly hardy, vigorous and productive. Fruit of medium size, red, streaked with white; quality good. December to February.

White Pippin. Large, roundish, greenish yellow; good quality; a fine orchard tree, and very productive; an annual bearer of handsome and good fruit. December to March.

NEW VARIETIES.

Arkansas Black. From Benton County, Arkansas. Tree a strong grower; fruit large, very dark red, good flavor. Has proven satisfactory in Arkansas, and Southern slope of Missouri; to the North it is inclined to scab.

Collin's Red. Originated in Arkansas by Mr. Collins. This is a valuable apple owing to its productiveness and keeping qualities. It is very productive; tree healthy and a good grower in the nursery. Form roundish, oblate, slightly ribbed, large; stem long to medium; cavity deep, usually smooth and green, sometimes slightly russeted; basin large, regular, rather deep and abrupt, slightly corrugated; color, yellow greenish ground, shaded and striped with red; surface covered with light dots; flesh solid, light yellowish color, moderately coarse, juicy and good. Season, winter.

Gano (Red Ben Davis). Yellow, nearly covered with dark red; very handsome, round, ovate, medium to large; flesh pale yellow, mild sub-acid; excellent quality, season with Ben Davis. Tree strong, upright grower, full and regular bearer.

Givens Is a variety that owing to its keeping properties and good quality, is of considerable merit. It originated on the farm of Mr. Givens in Benton County, and has been propagated and sold quite extensively by Mr. Highfill, of Springtown. It is a productive tree, hardy, and a good grower. Fruit, large, round, oblate; cavity deep, slope broad, russeted; stem long, slender; basin medium, broad, slightly ribbed, calyx small; surface somewhat indistinctly ribbed; shape of apple irregular, one side usually larger than the other; color, bright yellow ground, covered and indistinctly striped with red, small dots scattered over the surface; light bloom; flesh white, slightly tinged with yellow, firm texture; quality very good; mild sub-acid. Season, late winter.

Heiges (Red Limber Twig). A variety of considerable merit. Tree, vigorous and productive, somewhat on the Limber Twig order. Form, roundish, slightly conical; stem rather small, medium to long; size medium to large; cavity medium, sometimes russeted; basin shallow and small; color, yellow ground, covered with red, sometimes highly colored, surface covered with minute dots which are very thick near the calyx; flesh fine grained, yellow, tender; mild sub-acid and very good to best. Season, early winter. It is grown to considerable extent in this State.

Holman. A new variety. Originated by Mr. Shockley, three miles east of Springfield, Missouri. For a selection in a family orchard this is one of

the best. The late D. S. Holman, of Springfield, was awarded three State premiums by the Missouri Horticultural Society, on this variety, as the best eating apple, over everything else. Fruit medium size, striped with red. Keeps until February. Sub-acid, spicy, rich flavor of the best quality.

Loy. Awarded the first prize at the New Orleans Exposition, for the best new apple. Origin, Missouri. Named and recommended by the Missouri State Horticultural Society. The fruit is as large as the Ben Davis, resembling the Willow Twig in form and color. Core small, stem short, quality the very best, an extra long keeper. Tree a good grower, hardy, an early and annual bearer; a decided acquisition.

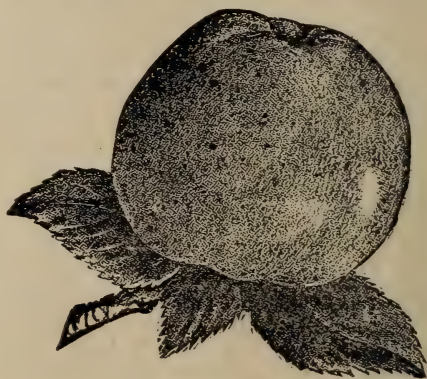
Oliver (Oliver's Red, Senator). This variety attracted considerable attention when on exhibition at the World's Fair, and later at the Atlanta Exposition. It is grown quite extensively in the western part of this country and a number of orchardists have been fruiting it for some years.

Mammoth Black Twig. This apple is from Arkansas. Very large in size; dark red in color. Good quality. Is proving a valuable acquisition to the list of commercial apples at its home, and also in Southern Missouri.

Minkler. Tree a strong grower and good bearer; fruit medium to large; not quite so red in color as the Ben Davis; very fine quality. Keeps until March. The Minkler is taking its place in the commercial orchards.

Payne's Keeper. Originated in Dade County, Missouri, by Joseph G. Payne, from seed brought from North Carolina. The tree as to growth, shape, hardiness, early and regular bearing, equals the Ben Davis, if not excelling it. Fruit nearly same color as Ben Davis, medium to large in size; quality, sub-acid, good; very good in flavor. Can be kept to August and September with special care; keeps to May and June with ordinary handling.

Yellow Transparent. A new Russian variety imported by the Department of Agriculture. Wherever tested it has proved to be decidedly the best early apple. Fruit, full medium size, clear, white skin, changing to a beautiful yellow when fully ripe; of good quality and, for an early variety, a good shipper. Ripens ten days before Early Harvest. On account of its earliness, size, beauty, quality, extraordinary hardiness, productiveness and early bearing, it is one of the most desirable sorts.



YELLOW TRANSPARENT.

York Imperial. Like the Babbitt, while not a new apple, yet its merit as a valuable commercial apple has been but little known until the last few years, when it came into bearing in this State, where it is proving very satisfactory to the planters. Fruit, a little larger than Jonathan, not quite so bright red, a little oblong in shape, and of excellent flavor. Will keep with the Ben Davis; a valuable sort.

CRAB APPLES.

There are several points to which we wish to call particular attention, and on which we base our recommendation of these hardy fruits for general cultivation.

1st. They are adapted to almost all localities.

2d. They ought to be in every orchard for family use, and when planted largely they are as profitable for commercial orchards as the apple.

3d. They will come into bearing very early, often in the second year from planting, and bear every year.

4th. They are very productive, giving large crops of beautiful fruit.

5th. They give larger returns than any other kind of apple, selling at \$10 to \$16 per barrel in market.

6th. They are unequaled for cider or vinegar, both of which command the highest market price.

7th. Some of them are preëminently dessert fruits, being of superior quality and strikingly handsome.

8th. They can be dried, cooked, canned or preserved with the skin on, thus saving a great amount of trouble.

9th. The size of the fruit varies from $1\frac{1}{2}$ to $2\frac{1}{2}$ inches in diameter, being large enough to quarter and core for drying, etc.

The following are the most valuable varieties:

Hewe's Virginia Crab. Rather small, round; dull red and dotted with white; acid, somewhat astringent, esteemed for cider.

Hyslop. Almost as large as Early Strawberry Apple; deep crimson. Very popular on account of its large size, beauty, and hardness.

Large Red Siberian Crab. About an inch in diameter, grown in clusters; yellow, lively scarlet cheek. Tree erect, vigorous, bears young and abundantly. August and September.

Martha Crab. A new variety which we have fruited here. Color, red, with stripes; large, with splendid flavor.

Transcendent. All things considered, this is perhaps the most valuable variety of Crab Apple grown. Tree remarkably vigorous, growing to a good size, and immensely productive. Comes into bearing a little the second year from planting, bearing every year after, and produces good crops by the fourth year. Fruit very large, from one and one-half to two inches in

diameter, being large enough to quarter and core for preserving and drying. Excellent for sauce and pies, both green and dried. The best of its class for cider, being juicy and crisp, and is also, by many, considered a good eating apple. Skin yellow, striped with red. August and September.

White Arctic. A new variety fruited in our nursery last year. Fruit, large; color, bright yellow. A splendid sort.

Whitney's No. 20. Very large handsome and fine. August.

Yellow Siberian Crab. Fine amber or golden yellow color.



WHITE ARCTIC CRAB.

PEARS.

While the melting, juicy texture, the refined flavor and the delicate aroma of the Pear give it a rank above all other fruits, except the grape, it is still an open question, discussed annually in the meetings of our horticultural societies and through the press, whether it can be grown with profit; and while all will agree that it will bring more money, is easier to handle, and less subject to have its bloom winter-killed than the apple, and much more so than the peach, yet the blight is the great bugbear which keeps our people from planting this noble fruit. While we acknowledge that this is a serious drawback, yet there are many instances on record of successful orchards and small patches here and there where Pears have been grown with invariable success, and free from blight. The rules of our Eastern brethren, of high cultivation and stimulating manures, will evidently not hold good here, for what may benefit their trees would kill ours and many of our planters who thought that because they paid higher for their pear trees than for their apples and peaches they had to give them the richest place in their orchards, have found to their cost that the soil can easily be too rich for pears, have stimulated them into a late growth, and lost their trees.

As to blight, we do not say that there are any varieties that are entirely blight proof. The Kieffer, Seckel, Howell and Sheldon are among the hardiest sorts. The Duchess is also fairly hardy.

We do not recommend much culture for pear trees after the first year.

Wood ashes makes a good mulch. Clover is perhaps the best crop to grow in a pear orchard. Grow your trees, even the Standards, with low heads, branching out two feet from the ground. They will bear earlier, can be kept in shape easier and will shade the trunk and the ground so that they are not so easily effected by extremes of drouth, and burning suns.

Form them into a pyramid by selecting the strongest central shoot as a leader, and pinch the strongest growing shoots several times during the summer, to check their growth and induce formation of fruit buds.

While we would prefer Standard Pear trees for orchard culture as a general thing, there are a few varieties which succeed better on the quince than on pear roots, and which are so good that we cannot do without them. Duchess D'Angouleme and Louise Bonne de Jersey are two of these, and no pear grower can afford to do without them. Tyson and Beurre d'Anjou are also among our best varieties, and so tardy coming into bearing on pear roots that our fast people cannot wait; they can be obtained much sooner if grown as dwarfs. For small gardens, dwarfs are also more desirable, as they take less room and come into bearing quicker. They should in all cases be branched within two feet of the ground.

Pears should in all cases be ripened in the house, not on the trees, as they will become finer in color, be much better in quality and are handled and shipped with greater safety than when ripened on the trees. Pick them when they have attained their full size, and they begin to show that slight change of color indicative of ripening. The best sign of their being ripe enough is when the fruit is moved upward by the hand and the stem parts readily from the branch. Always leave the whole stem on the fruit when picking; a pear without the stem is as much disfigured as a man with his nose cut off. In this state, where the fruit is yet solid, it can be handled and barreled with as much safety as apples, and will bear shipping to any distance, so that the dealer can receive it in the best condition, and it will ripen and color as fast as he wishes to sell it. But it will pay and pay well, to select the best and most perfect, wrap them in paper separately, and thus prevent all bruising; there are instances on record where a single barrel, carefully selected and skilfully handled, has sold for \$60 to \$65. Winter dessert pears should be wrapped in paper, put in barrels or boxes, and placed in a dry, cool room, keeping them covered to prevent shriveling. A week before they are to be used they should be moved to a warmer atmosphere and kept at a temperature of 60 to 70 degrees. They will then become tender and melting and obtain a higher flavor than if ripened in a cold room.

There are thousands of rocky hillsides, where the soil is loose, dry and deep, but so intermixed with stones as to be unfit for cultivation, which could be converted into profitable pear orchards; and as the pear, where free from blight, is a much surer crop than even the apple, while the fruit commands four times the price of apples, can be shipped as easy and with

even greater safety than the apple and always finds a ready sale, those who have such lands should give them a fair trial, and thus convert their barren hillsides into sources of profit and pleasure.

The letters "D" and "S" appended to the descriptions of varieties indicate favorable growth, either as "Dwarf" or "Standard" or both. Those designated as "slow growers" are usually smaller trees.

SUMMER.

Bartlett. Large size, with often a beautiful blush next the sun; buttery, very juicy, and high flavored. Tree a strong grower, bearing early and abundantly; very popular. Last of August and first of September. D. S.

Clapp's Favorite. A large, new, fine pear, resembling the Bartlett, but without its musky flavor; pale lemon yellow, with brown dots; fine texture, melting, buttery, juicy, with a rich, sweet, vinous flavor. Tree hardy and very productive. A promising fruit of great excellence. Last of July and August. D. S.

Doyenne D'Ete. Small, melting, sweet, yellowish. Tree vigorous and productive. Early July. D. S.

Souvenir du Congres. Recently imported from France, and of great promise. Fruit large and exceedingly handsome; beautiful yellow, with bright red in the sun; melting and juicy, with a musky flavor. September. New.

Tyson. Rather large, bright yellow, with a brown cheek; melting, sweet and delicious. August. D. S.

Wilder Early. This variety is a good grower; superior flavor and of good color; a fine keeper and shipper; will ripen here before the last week in July.

We would enumerate the good points of the Wilder Early Pear as follows: 1. Earliness, ripening in Central New York about August 1. 2. Superior quality, nothing of its season being so delicious. 3. No rotting at the core; it has been kept for weeks in a warm room, and never saw one rot at the core, yet this is the weak spot in nearly all early pears. 4. Long keeping and superior shipping qualifications. 5. Great beauty and productiveness, bearing every year and on young trees. 6. Great vigor, often growing six to seven feet from the bud in one season. 7. Hardiness and strong constitution, which enables it to thrive and endure neglect where many other varieties would prove a failure. 8. Small, meaty core, with few seeds. The core is eaten and is as delicious as any other part. No one would waste the core of the Wilder Early.

AUTUMN.

Beurre d'Anjou. A large, fine pear; buttery and melting, with sprightly, vinous flavor. Tree a fine grower, and good bearer. September and October. D. S.

Duchess L'Angouleme. Very large, greenish yellow, sometimes a little

russeted; makes a beautiful tree; does best on quince. One of the best. September and October. D.

Doyenne Boussock. Large, lemon yellow, a little russeted; juicy, melting, with sprightly vinous flavor; good grower. August and September. S.

Doyenne White (Virgalieu). Medium, pale yellow, with a faint blush; fine flavor. September. D. S.

Flemish Beauty. Large, beautiful, juicy, melting, rich and fine; strong grower, good bearer; hardy everywhere. August and September. D. S.

Howell. Large, light, waxen yellow, with a fine red cheek; handsome, rich, sweet, melting, perfumed aromatic flavor. Tree an upright, free grower, an early and profuse bearer. Very hardy and valuable. August and September. D. S.

Louise Bonne de Jersey. Rather large, greenish yellow, with a bright red cheek; juicy, buttery and melting, excellent; very productive; a fine grower on both pear and quince. September. D. S.

Sheldon. Medium to large; yellow and red; a very excellent and promising variety from Wayne County, New York. Tree a fine grower and productive; must be double worked to grow on quince. September.

Seckel. Small; rich yellowish brown; one of the best and highest flavored pears known; productive. September. D. S.

WINTER.

Kieffer. A seedling of Chinese Sand Pear; very vigorous; almost free from blight; enormously productive; fruit large, golden yellow with red cheek; very handsome, good quality, excellent for canning. We are planting the Kieffer for commercial purposes. We believe it to be the best, and know it to be a success. This is the great commercial Pear. Standard trees will bear the second year from setting.

Lawrence. Above medium; yellow, thickly dotted; a very rich, fine flavor; one of the best. Tree a moderate grower and very productive. October to November. S.

Mount Vernon. Medium to large, of a rich russet color; flesh rich, juicy, melting, with a spicy flavor. New. November to January.

Vicar of Winkfield (Le Cure). Large, long; not first quality, but desirable for its productiveness. Best on quince. November to January. D. S.

Winter Nelis. Medium size, yellowish green and russet; fine grained, melting, rich and delicious; one of the best winter pears. Tree straggling; slender grower, but very productive. December. S.

Ozark. Originated in Polk County, Missouri. A distinct new variety. The original tree has been bearing for forty years. Has never shown any appearance of blight. The tree is a strong thrifty grower. The fruit beautiful yellow color when ripe; fine grain; quality equal to Bartlett; round, smooth, flat at stem, and more like an apple than pear in shape. Pro-

nounced by the pomologist at Washington to be one of the best Pears yet introduced. We believe this will prove to be one of the most valuable varieties and recommend it for planting.

CHERRIES.

The same rules as to soil and culture hold good with Cherries as with Pears in the West. Select the driest and poorest soil you have if you want to grow Cherries successfully, and if you have no light and dry soil, grow only the hardy varieties, such as Early Richmond, English Morello, etc. The Heart and Bigarreau are apt to grow too rapidly and late, then, after



EARLY RICHMOND.

sudden frost, bursting of the bark and disease follows. On dry, light and strong land the hardier varieties of Heart and Bigarreau, such as Governor Wood, Yellow Spanish, Black Tartarian, etc., may also be grown successfully, at least in the Southwest. As a general rule it will be safest to plant Dukes and Morellos only, the Early Richmond and English Morello standing at the head of the list.

We now employ the Mahaleb stock exclusively, as we find the trees on it more hardy in many cases, and it is adapted to a greater variety of soils.

We include a partial list of the sweet sorts, but do not recommend them for planting in this latitude.

HEART AND BIGARREAU CHERRIES.

Black Tartarian. Large, purplish black, half tender, juicy, very rich, excellent flavor. Tree a vigorous grower and productive. Last of May or June.

Elton. Large, with fine flavor; pale yellow, light red next the sun; vigorous grower. June.

Governor Wood. Medium, rich; light yellow, with a red cheek; juicy and sweet; one of the very best. First of June.

Napoleon Bigarreau. Very large, pale yellow, red cheek; very firm, juicy and sweet. Vigorous grower and very productive. One of the best. Middle of June.

Yellow Spanish. Large, pale yellow, with red cheek; firm, juicy and excellent, one of the best light colored Cherries. Vigorous and productive. First of June.

DUKE AND MORELLO CHERRIES.

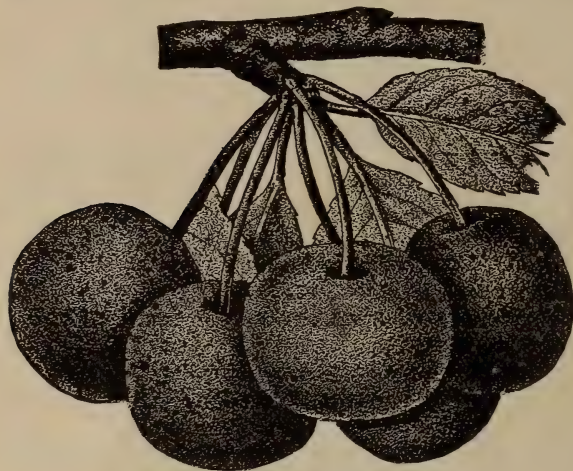
These are for the most part round shaped; fruit generally acid, though some varieties have a very mild, pleasant flavor. The trees are naturally of a smaller growth than the preceding class, and well adapted for dwarfs or pyramids. The Morellos are more slender and spreading in habit than the Dukes, which are of stocky, upright growth. Both are more hardy than the Hearts and Bigarreaus, and in large demand where the latter cannot be grown with advantage.

Belle Magnifique. Fruit large, roundish, bright red; flesh tender, juicy, sprightly, sub-acid; one of the finest of this class of cherries. Tree hardy, vigorous and productive. Ripens in July.

Dychouse. A very early and sure bearer; ripens a week before Early Richmond. June.

English Morello. As the Early Richmond occupies first place among the earlier sorts, so does the English Morello among the late sorts, as the most profitable variety. Fruit medium to large, dark red, rich, juicy and good; very productive. August.

Early Richmond (Kentish, Virginian May). Medium size, dark red, melt-



ENGLISH MORELLO.

ing, juicy, sprightly acid flavor; one of the most valuable and popular of the acid cherries, and is unsurpassed for cooking purposes. Tree is a slender grower, with a roundish, spreading head; is exceedingly productive. The most hardy of all varieties, uninjured by the coldest winters, when every other variety has been killed. Ripens through June.

Large Montmorency. A large, red, acid cherry; larger than Early Richmond, and fully ten days later.

Wragg. Very hardy, vigorous and productive; medium, dark purple, fine quality. July.

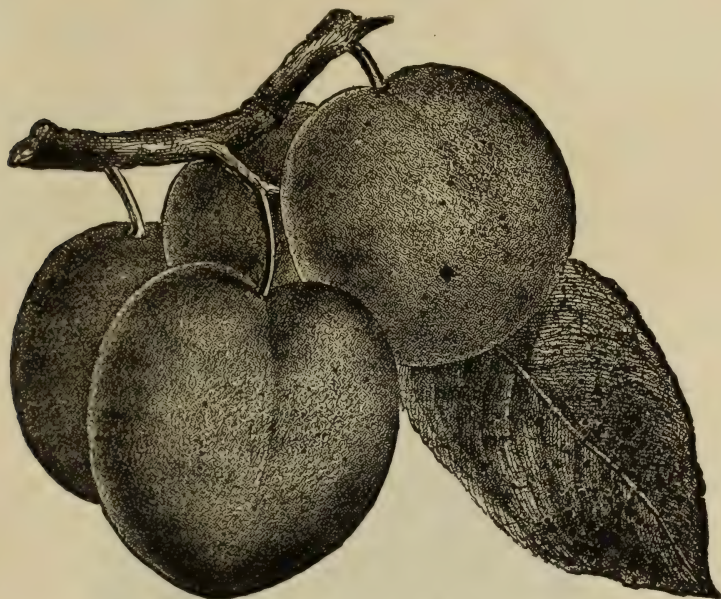
PLUMS.

Abundance. This is a remarkable fruit indeed; both in tree and fruit it is unlike any other plum. In growth it is so strong and handsome as to render it worthy of being planted as an ornamental tree, equaling in thrift and beauty the Kieffer Pear, which it even excels in early, profuse bearing. Its propensity to early bearing is such that it loads in the nursery row, the limbs bending with the weight of fruit until they sometimes break; this is the case every year. The curculio has no effect upon it, the eggs failing to hatch and produce the destructive grub, the same as with the Spaulding. The fruit is very large, showy and beautiful. Amber, turning to a rich, bright, cherry color, with a decided white bloom, and highly perfumed. Season early—August. Stone small and parts readily from flesh.

Burbank. Introduced by Mr. Luther Burbank of Santa Rosa, California, and considered to be the best of over forty Japan plums tested by him. Fruit is large, nearly globular; clear cherry red, with lilac bloom; flesh deep yellow, very sweet, with a peculiar and most agreeable flavor. Tree very vigorous, often commencing to bear when only two years old.

Damson. Fruit small, oval; skin purple, covered with blue bloom; flesh melting and juicy, rather tart; separates partly from the stone. September.

General Hand. Very large, oval; deep yellow, moderately juicy, sweet and good; parts freely from the stone. August.



ABUNDANCE.

German Prune. A large, long, oval variety, much esteemed for drying; color dark purple, of very agreeable flavor. September.

Golden Beauty. Round, large as Wild Goose, rich golden yellow; very firm, small seed, nearly free, excellent in quality, immensely productive; very late and valuable.

Kelsey's Japan Plum. It has proven hardy with us, is a good grower, and is free from disease in every form. Fruit of large size and of finest texture; considered the finest plum grown.

Newman. Large red, very productive and reliable.

Prunus Simoni (Apricot Plum). This new plum, a native of Northern China, is believed to be the most valuable new fruit introduced for many years, being hardy as far north as central Iowa and Nebraska, and in protected situations even farther. Its fruits are very pretty, with a very short stem, size of Orleans Plum, with brick red or dark cinnabar color. The

flesh shows a fine apricot yellow, firm, and has a peculiar aromatic flavor not found in the plums we cultivate.

Satsuma (Blood Plum). Pit very little larger than a cherry stone; flesh a solid clear red color from pit to skin. Prof. Van Deman: "One of the most promising and most vigorous sorts. Tree hardy as Abundance. Equal to Kelsey in size—often two inches in diameter,—a month earlier, and valuable for the North where Kelsey does not succeed. Its only defect is that it blooms early."

Wickson. Originated with Mr. Luther Burbank of Santa Rosa, Cal., and considered by him to be among the best of the Japan plums. The tree is a strong, vigorous upright grower, even more so than the Simon Plum, which it very much resembles in habit, except that the leaves are much broader. It is a cross with Satsuma on Kelsey bloom; formed like the Kelsey, but more symmetrical; in ripening the color changes from a deep cherry red to



BURBANK.

a rich claret; flesh amber, very juicy; pit is small; the flavor is striking and agreeable. Having fine keeping qualities it will undoubtedly be a valuable acquisition to our list of shipping plums.

Willard. Medium size, color dark red, with many minute yellow dots;

flesh rather firm, yellow, sweet and of fair quality; freestone. Said to be a strong, vigorous and hardy tree, and one of the earliest market Japan plums in the Eastern States.

Wild Goose. Large, rich crimson, very productive and perhaps one of the most profitable sorts.

PEACHES.

The Peach tree requires a well drained, moderately rich soil—warm, sandy loam is probably the best. The highest ground should always be selected. Many of the stony ridges and hilly slopes in Southern Missouri that are thought to be worthless by the majority of farmers who own them would prove to be the most valuable lands on the premises if they were planted to peach trees. This fact is being fully demonstrated all along the line of the Gulf railroad from Springfield south, especially in Howell and adjoining counties, where we have seen peach orchards only three years old, on the very stoniest land, produce \$80. worth of peaches per acre, and trees in full bearing produce \$300. per acre for a single crop.

In selecting and planting the peach it is best to select a medium size tree; trim to a whip and cut back as low as two feet so as to form a head with regular branches, thereby avoiding forks.

In order to preserve the continued healthy growth of the tree and the fine quality of the fruit, the Peach should have the shoots and branches shortened in every year or two, so as to preserve a round, vigorous head; and the land should not be seeded to grass, but kept in constant cultivation.

The following have been selected after an examination of more than one hundred different sorts in bearing, the best only being chosen. They furnish a succession of about four months, commencing the early part of August.

Alexander. Of recent introduction. Handsome, of delicious flavor; two to three weeks earlier than Hale's Early. 20th of June.

Amsden. New; very early, three weeks before the Hale's Early, and a few days before the Early Beatrice. The tree is hardy, vigorous, and very productive, and the fruit has remarkable keeping and carrying qualities. Fruit rather larger than Hale's Early, roundish, a little flattened, with a slight suture; color red, beautifully shaded and mottled with a very dark red, nearly covering the greenish white ground; flesh white with a delicious flavor. June 20th.

Capt. Ede. An extra fine variety from Southern Illinois. Large, yellow, excellent quality. Tree hardy, both in bud and blossom. Said to be an improved Elberta, ripening ten days earlier.

Carman. Large, resembles Elberta in shape; color creamy white or pale yellow with deep blush; skin very tough; flesh tender, fine flavor and quite

juicy. Ripens with Early Rivers. One of the hardiest in bud. In shipping qualities it is unsurpassed. Promises to stand at the head for a general, long distance, profitable market variety, in quality ranking superior to anything ripening at same time. August.

Crawford's Early Melocoton (Early Crawford). This very beautiful yellow peach is highly esteemed for market purposes. Fruit very large, oblong; skin yellow, with fine red cheek; flesh yellow, juicy, sweet and excellent. Tree very vigorous; tender in bloom here. Last of July.

Crawford's Late Melocoton (Late Crawford). Fruit of the largest size; skin yellow, with bright red cheek; flesh yellow. Tree vigorous, moderately productive. One of the finest late sorts. Last of August.

Chinese Cling. Large, white, shaded red. August.

Early Rivers. Another new variety; large, light straw color, with delicate pink cheek; flesh juicy and melting, with very rich flavor. Ripens close after the Louise, and one or two weeks earlier than Hale's. July 5th.

Elberta. Supposed to be a seedling of Chinese Cling, but is entirely free. Very large, yellow with red cheek; flesh yellow, firm, juicy, of high quality. Exceedingly prolific, sure bearer and hardy. Thousands of acres have been planted in the South, where it is regarded as the best market variety. It is proving to be equally as valuable in the North, and is highly recommended by G. H. Hale, the Connecticut peach grower. It is rapidly becoming popular, and promises to be the best general peach for all sections. Follows Early Crawford.

Emma. One of the best late peaches, seedling from the Elberta. As large, more round in shape, better in quality, and as good a shipper as the Elberta, ten days to two weeks later, ripening last of August and first of September.

Family Favorite. Large size, first quality; a free stone; a splendid sort. August.

Foster. Originated in Medford, Mass. Large, deep orange red, becoming very dark on the sunny side; flesh yellow, very rich and juicy, with sub-acid flavor. Earlier than Early Crawford. Very handsome. The originator says he has sold the fruit readily at \$12. per dozen peaches. New.

Globe. Large, flesh very firm, juicy, yellow, shaded with a reddish tinge toward the pit; quality good, pleasant, rich, vinous and luscious. October.

Gudgeon's Seedling. Large, white flesh, red cheek, very attractive; fine quality, good shipper. October.

Heath Cling. Large, white, juicy and rich. October.

Mountain Rose. Large, red, white flesh, juicy, excellent. August.

Old Mixon Cling. Large, pale yellow, red cheek. Last of September.

Old Mixon Free. Large, pale yellow, deep red cheek, white flesh, tender, rich, good. September.

Picquit's Late. Good size, free stone, whitish color, good flavor. One of the best late sorts. September and October.

Smock Free. Large, yellow and red, bright yellow flesh. Valuable for market. Last of September.

Salway. Large, creamy yellow, crimson red cheek; flesh deep yellow, juicy, rich, sweet. October.

Stump the World. Very large, white, with a bright red cheek. End of September.

Steadley. Originated at Bluffston, Missouri. Free stone, ripens later than Heath Cling; white, with faint blush on sunny side; juicy, fine flavor, delicious. First of October.

Wonderful. Large, color rich golden yellow, largely overspread with vivid carmine. Flesh yellow, rich, high flavored and delicious, exceedingly firm; bright red at the pit. October.

VARIETIES OF SPECIAL MERIT.

Champion. Originated at Nokomis, Illinois. Has been carefully tested for a series of years. It first attracted attention by the regularity of its

bearing in a region not adapted to peach culture, a quality which alone would place it in the front rank of profitable orchard varieties. The crowning event in its history was the production of a full crop in 1890, when the peach crop was a universal failure. During the winter of 1887-8 the Champion withstood a temperature of 18 degrees below zero, and produced an abundant crop the following season. Many specimens have measured ten inches in circumference. The flavor is

delicious, sweet, rich and juicy, surpassing all other early varieties; skin creamy white with red cheek, strikingly handsome. It ripens at Nokomis about August 5th. It is hardy, productive, early, the largest size, highest flavored and best shipper of the early peaches, and the only perfect free stone,

Galland June. This excellent new Peach, we believe, is justly entitled to be termed the "earliest of earlies." It was first brought to notice in 1877, by Mrs. S. W. Galland of Bolivar, Mo., who found it among other volunteer seedlings standing in an old neglected back lot, or orchard, among thorns and briars, and supposed to be three years old. Notwithstanding the neglected condition of the tree, it was loaded with nice, ripe, mellow fruit, this being only the 7th day of June. The following season the attention of some of the leading horticulturists of the town was called to it to examine it, and all agreed that it possessed a number of valuable points over any variety known. First, its ripening five to eight days earlier than the Amsden June, or any other variety they knew of. Size and form, as well as its



1/2 NATURAL SIZE.

beautiful coloring, were also above anything they knew. And, most important of all, it was ripe through and through, possessing a sweet and delicious flavor, and clear of that green, woody-like substance so common among many early sorts. The tree is a fine, strong, healthy, uniform grower, hardy and a good bearer. The young budded trees, three years old, stood beside Amsdens of the same age, and both varieties were full of fruit; the Galland was good and ripe five to eight days before the Amsden would do to use at all. They were good and ripe the 5th day of June, 1880.

We give here a report as clipped from the Bolivar *Free Press* of same week: On the 5th inst. Mrs. S. W. Galland, the proprietor of this peach, invited a number of well known gentlemen who are amateur horticultur-



GALLAND JUNE.

ists, to examine a new peach, which has for two seasons matured earlier than any peach yet known, earlier even than the famous Amsden. The result of their observations is given in the following report:

"The undersigned, upon invitation from Mrs. S. W. Galland, visited

her residence in Bolivar, Polk County, Missouri, on the 5th day of June, 1878, and by request inspected a peach tree and the fruit growing upon it. This is the second season the tree has borne. We plucked peaches from the tree with our own hands. The peaches are fair for size, one measuring seven inches in circumference. They are of the half cling variety, and of a deep red color upon one side, which will probably nearly or quite cover the peach when fully ripened. This peach we consider ripe and in good shipping order. The flavor of the peach is fully equal to any of the early varieties; the color of the flesh is creamish white, and that of the seed white. This peach we think is a good keeper and would ship well, and is especially rich in the coloring so greatly prized by fruit dealers. The tree we judge to be four years old; are satisfied that it is a seedling and a new variety, being the earliest peach that we have ever seen, or have any knowledge of. The tree stands in open ground in the orchard, and does not appear to have received any special care or cultivation.

"W. C. RITTENHOUSE,

"WILLIAM CAREY,

"JNO. W. ROSS,

"H. C. SEA."

Size: Above medium of early varieties, seven to eight inches in circumference. *Form:* Round, smooth, with shallow suture on both sides, running from stem partly up the side. *Color:* Creamy white, striped or mottled, with beautiful crimson covering two-thirds of fruit. *Flesh:* Creamish white, with rich, juicy, vinous flavor, adheres to stone about like Hale's or Amsden. *Season:* Fifth to tenth of June.

NECTARINES.

A most delicious, smooth-skinned fruit which thrives wherever peaches will grow, but is liable to be stung by the curculio, and requires the same treatment as plums. Ripens in August.

Early Violet. Medium size, yellowish green, nearly covered with dark purplish red; juicy, rich and high flavored. First of August.

Elruge. Medium size, pale green with dark red cheek; flesh pale green, very juicy and rich. Middle of August.

Red Roman. Large size, greenish yellow, with a dark, dull red cheek; flesh yellowish, fine and rich. Fine grower, and productive. Middle of August.

APRICOTS.

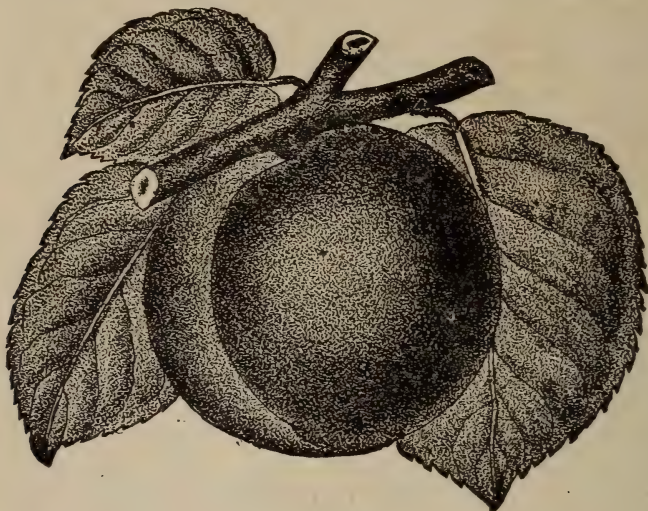
A delicious fruit, valuable for its earliness. It is liable to be attacked by the curculio, and requires the same treatment as the plum. It bears immense crops, ripening in July and August.

Early Golden (Dubois). Small, pale orange, juicy and sweet; hardy and productive. First of July.

Moorpark. One of the largest; orange with a red cheek; firm, juicy, with a rich flavor; very productive. August.

RUSSIAN APRICOTS.

These are quite distinct from the European varieties, hardier, and will



J. L. BUDD.

produce fruit when other Apricots fail; recommended where peaches can not be grown. They are all early bearers and productive.

ALEXANDER,
ALEXIS,

CATHERINE,
GIBB,

J. L. BUDD,
NICHOLAS.

QUINCES.

The Quince is of late attracting a great deal of attention as a market fruit. Scarcely any fruit will pay better in the orchard. The tree is hardy and compact in growth, requiring but little space, productive, gives regular crops, and comes early into bearing. The fruit is much sought after for canning for winter use. When put up in the proportion of about one quart of quinces to four of other fruit, it imparts a most delicious flavor. The Quince should be planted on a north or west slope, on good, well-drained soil.

Apple or Orange. Large, roundish, bright golden yellow; cooks tender, and is of very excellent flavor. Valuable for preserves or flavoring; very productive; the most popular and extensively cultivated variety. September.



ORANGE QUINCE, $\frac{1}{3}$ SIZE.

Quince, one third larger, of the same form and color; fair, handsome, equally as good, and said to be as productive. Tree a healthy, thrifty grower.

Meech. Strong grower, enormously productive, and comes to bearing very young. The fruit is remarkable for its fine form and color, high fragrance and flavor; large size, bright orange yellow, very handsome, and unsurpassed for cooking.

Champion. Very hardy and prolific, commencing very young, often at two and three years old in nursery rows; very large, showy and handsome, rich yellow; flesh tender, and cooks free from lumps.

Rea's Mammoth. A seedling of the Orange

GRAPES.

The vine comes quickly into bearing, yielding fruit usually the third year after planting, requires but little space, and when properly trained is an ornament to the yard, garden or vineyard.

It is stated by some of the most eminent physiologists, that among all the fruits conducive to regularity, health and vigor in the human system, the Grape ranks number one. We hope soon to see the day when every family shall have an abundant supply of this most excellent fruit for at least six months of the year.

We are giving our attention to the growing of vines of all valuable hardy varieties. Those who have been disappointed by the late and imperfect ripening qualities of the Isabella and Catawba, can now obtain Grapes that are better in quality, and far earlier in ripening than they.

While vineyards, if allowed, will sometimes produce four tons to the acre, it is not best for the health of the vine and uniformity of yearly crops to suffer more than half this amount to grow, or two tons per acre.

The soil for the Grape should be dry; when not naturally so it should be thoroughly drained. It should be deeply worked, always bearing in mind that it is an essential point to secure a warm, sunny exposure, but more than all, a free circulation of air as a preventative of rot and mildew, which are often so destructive to the crop.

The best grape vine trellis is probably the wire trellis. This is con-

structed by planting posts as far apart as you choose to have the length of your trellis; stretch the wires, four in number, about eighteen inches apart, letting them pass through stakes at proper distances from each other to support the wire. As the wires are contracted by the cold and are likely to break, or sway the posts from their places, they should be loosened as cold weather approaches.

To secure the best results, annual and careful pruning are essential. The following is regarded as the best method: Commencing with a good strong vine, such as we furnish, permit it to grow the first season without pruning. In November or December following cut back the growth, allowing but three or four buds to remain. The following Spring allow but two of the strongest buds to throw out shoots. These in the Fall will be from seven to ten feet long and should be cut back to within four or five feet of the root. The next Spring the vine should be fastened to the lower part of the trellis. When growth commences, pinch the buds so that the shoots will be from ten to twelve inches apart. As these grow, train them perpendicularly to the second, third and fourth bars of the trellis.

Grapes may be kept through the winter in small boxes holding three to five pounds, if placed in a cool, dry room, of even temperature; or they may be spread out to dry for two days and then laid in market baskets and suspended in a cool dry cellar.

Out of the many varieties now propagated we give the description of some of those that we think the most hardy and profitable to plant.

Brighton. A cross between the Concord and Diana Hamburg. It gives the best of satisfaction as far as tried. Bunches large, berries of medium size, dark red; flesh sweet, tender and of the highest quality. Ripens one week earlier than the Delaware, and being most vigorous and hardy, it promises to become fully as popular.

Catawba. Well known as the great wine grape of Ohio, Kentucky, etc.; bunches large and loose; berries large, of a coppery red color, becoming purplish when well ripened; two weeks later than the Isabella; good, but too unhealthy to be relied upon.

Cynthiana. Very similar to Norton's Virginia; the most valuable red wine grape we have, making a wine not quite so dark and astringent, but of finer and more delicate flavor; always reliable, one of the surest grapes we have; keeps remarkably well and is very sprightly and spicy; a good grape for winter use.

Clynton. A grape of medium size in bunch and berry. Like Norton's Virginia, it is free from mildew and rot, which makes it a very valuable sort.

Concord. A popular variety where the choicer kinds fail to ripen; universally healthy; vigorous and productive; flesh somewhat buttery, moderately juicy and sweet; bunch large, nearly black with bloom; early. It can be truly said that the Concord is the Ben Bavis of the Grape family.

Delaware. Still holds its own as one of the finest grapes. Bunches small, compact, shouldered; berries rather small and round; skin thin, light red; flesh very juicy, without any hard pulp, with an exceedingly sweet, spicy and delicious flavor. Vines moderately vigorous, very hardy and productive; ripens two weeks before the Isabella. Not reliable at the South, as its foliage is too tender to withstand the hot sun.

Eaton. A new sort. Very large in bunch and berry; of fine quality; medium season; color black; hardy as far as tested.

Elvira. Originated with Mr. Jacob Rommel, Morrison, Missouri, and seems to succeed wherever grown; one of the best and most reliable table and wine grapes, and so hardy that it will endure the coldest winters with-

out flinching; bunch medium, compact; berry medium, greenish white, sometimes with faint amber tinge in the sun, transparent; thin skin, without pulp, very sweet and juicy; makes a very fine white wine, resembling Riessling. Very productive.

Hartford Prolific. Bunches rather large; berries large, globular, color almost black, covered with a beautiful bloom; flesh sweet and juicy. Ripens two weeks before Isabella; valuable for its hardiness, abundant bearing and early maturity. One of the best.

Martha. Tested in Missouri for many years; good and reliable; sweeter and better than its parent, the Concord, though not so large in bunch or berry; bunch and berry medium, greenish white, juicy and sweet, but somewhat foxy; earlier than Concord. Very hardy and productive.

Moore's Early. Originated in Massachusetts; said to be two weeks earlier than Hartford and much better in quality; not tested here, but grows vigorous and healthy.



CONCORD.



MOORE'S DIAMOND

Moore's Diamond. The new, early white grape. From seed of Concord fertilized with Iowa; one of the most valuable sorts. Produced by Jacob Moore. Very fine in flavor; also partakes of the hardiness of the parent Concord, and is two to three weeks earlier.

Missouri Riessling. Originated with Nicholas Grein, Hermann, Missouri. A very fine and very hardy and healthy grape; a seedling from Taylor. Bunch and berry medium, compact, pale yellow, changing to amber when very ripe; sweet, juicy, and vinous; very tender pulp; quality best for table, and also makes a very wine resembling the famous Riessling. Should be planted by everyone, as it is healthy and hardy even at the extreme North.

Moyer. The new red grape, said to be equal to the Delaware in all respects as a fine grape, with the advantage of being much hardier.

Norton's Virginia. Well known as one of the most reliable and healthy wine grapes; will also keep well for winter use, and though small, is very sprightly.

Niagara. One of the finest white grapes. Large bunch and berry, juicy and sweet. New, but tested.

Golden Packington. Worthy of a place in any vineyard. A white grape with a golden tinge; hardy and productive; large bunch and berry; a little earlier than Concord.

Worden. This, we think, is one of the best black grapes for this climate, and will prove satisfactory to all who plant it.



NIAGARA.

Small Fruits.

The small fruits, such as Strawberries, Raspberries, Blackberries, Gooseberries, Currants, etc., ripening from the middle of May until Fall, are everywhere capable of successful cultivation, and yield large returns at comparatively small expense. They should have a place in every garden. Since the introduction of self-sealing jars and cans they can be had throughout the year almost as fresh as when gathered.

STRAWBERRIES.

First of the small fruits, in the month of May comes the beautiful, wholesome and appetizing Strawberry. The profits which may result from its cultivation, when properly conducted, are enough to satisfy the highest expectations. On a sandy and gravelly loam, the well known author of the "Fruit Garden," Mr. P. Barry, of Rochester, planted Wilson's Albany, and picked at the rate of almost three hundred bushels per acre, averaging about one thousand dollars. This is enormous, but shows what can be done under favorable circumstances.

Plant in March, April, May, September or October on good ground, deeply worked and well manured. Vegetable manure (muck, rotted turf, woodsoil, ashes, etc.) is the best. Bonedust is excellent. Set in 4 foot rows, 15 inches apart in row for field culture; and 15 inches each way for garden, leaving a pathway at every third row. Keep in hills with runners cut, unless troubled with the white grub. Cultivate clean, mulch late in Fall, uncover crowns early in Spring, remove mulch after fruiting, and spade in a light dressing of manure.



BUBACH NO. 5.

Bubach's No. 5 (p.) Combines many excellent qualities, such as great and uniform size, fine form and color, good quality of fruit, unsurpassed productiveness, and great vigor of plant. It ripens almost as early as the Crescent, continues about as long in bearing, and is fully as prolific; leaves large and dark.

Crescent Seedling (p.) Medium size, bright light scarlet; continues a long time in fruit; plant very vigorous and hardy and will produce good crops under greater neglect than any other Strawberry.

Captain Jack. Originated with Samuel Miller of Bluffton, Mo. Similar to Wilson's Albany, of which it is a seedling, but of brighter color, better quality, larger, and of more uniform size. Very productive wherever tried and as it is very firm, is also an excellent shipping berry.



GANDY.

Gandy. A cross between Jersey Queen and Glendale, possessing some of the good qualities of each, making a valuable late variety; berries bright crimson, uniform size and shape, large, firm, and ripens late; plant healthy and vigorous.

Haverland (p.) Plants are very large, healthy, vigorous, and ripen their fruit evenly and early, holding on through the season. Berries are fine, uniform shape, very large, excellent flavor, and bright red color. One of the best market varieties.

Jessie. Plant stout, luxuriant grower, foliage light green, large and clean. The berry is very large, continuing large to the last picking. It is of beautiful color, fine quality, good form, colors even, with no white tips. Very firm.

Michel's Early. The earliest variety, resembles Crescent, but ripens several days earlier and is much firmer. Planted largely and giving the best of satisfaction as a market berry South. Not prolific enough for a standard market variety in the North.

Sharpless. Has retained its high reputation for vigor of plant, size of berry, flavor and productiveness; flesh firm, sweet, with a delicious aroma; of fine quality; color clear light red, with a smooth, shining surface.

Warfield. It is not immensely large, but its great beauty, firmness, earliness,



MICHEL'S EARLY.

good flavor, productiveness and vigor, combined with good size, make it exceedingly popular. Ripens with Crescent, and is superceding that variety for a reliable market berry.

NEW VARIETIES.

Aroma. Large, late and productive. It has vigorous foliage and is a good producer of plants. The bloom is perfect and strong. The berry is much like the Gandy, only a little darker and richer in appearance. A late berry, but not so late by four to six days as Gandy.

Lady Thompson. Originated by Thompson of Virginia. Has proved a grand success all over the South. It is a good plant maker and a strong, perfect bloomer, being freely used as a fertilizer for early and medium pistillates; yet unlike many fertilizers, it is profitable to grow for fruit by itself, for it produces a fair amount of fruit of nice flavor. A little soft for long distance shipping. Very early. Avoid planting it on land too wet.

Phillips' Seedling. Of this variety Mr. W. F. Rausch, a successful berry grower, says: "It is simply immense; it will only have to be seen to be appreciated. I predict a great future for it. I believe it is the largest berry I ever saw. It is a good fertilizer, being very rich in pollen and an enormous yielder of enormous berries." Season medium, and it succeeds in almost any soil.

Ridgeway. One of the best general purpose berries ever introduced. All reports so far received of this variety have been favorable. Medium to late. It seems to be at home on nearly all soils and will be found to be one of the best pollenizers for imperfect varieties ever sent out. Bubach are especially fine when planted with Ridgeway.

RASPBERRIES.

This fruit comes just after strawberries and, when properly cultivated, is quite profitable. Plant on strong soil, manure freely, cultivate well or mulch heavily. For field, rows six feet apart, four feet in row. Pinch off canes when three feet high, and prune off laterals the following Spring, within twelve or eighteen inches of the cane. The best and cheapest support for them is a single wire stretched over small posts set ten feet apart and two and a half feet high, to which the canes are tied in fan shape with willows or strings in the Spring. Cover tender varieties in winter by bending down and throwing on earth.

Raspberries are classed under two heads, Red, and Black Cap. We only give descriptions of the best and hardier sorts.

BLACK CAPS.

Gregg. This is one of the old tried sorts and is perhaps the best of the late sorts. Fruit large and of good flavor.

Johnston's Sweet. Remarkably sweet, and of great value for evaporating and canning purposes. The canes are of strong, vigorous growth, with healthy and clean foliage; hardy and productive. The berries are of a deep black color, quite firm, very sweet, and delicious in flavor. Ripens early.

Kansas. Of all the Black Cap family this has proved the most wonderful in productiveness, size and uniformity of fruit, and stockiness and hardness of plant of any sort we have ever grown. The bush is a strong, upright grower; foliage a rich dark green; fruit large and holds out large to the very last picking; black, with a rich purple bloom; very juicy, high flavored and delicious; perfectly hardy; the surface sufficiently firm to bear transporting to distant markets. One of the earliest Black Caps.



KANSAS.

Souhegan or Tyler. One of the earliest Black Raspberries, and the leading early market sort. It ripens its entire crop within a very short period, a desirable feature when it precedes second early sorts. Canes are vigorous, strong and hardy, with foliage healthy and free from rust; wonderfully productive. Fruit of good size, jet black, with but very little bloom, firm, and sweet pleasant flavor.



CUTHBERT.

RED RASPBERRIES.

Cuthbert, or Queen of the Market. A remarkably strong, hardy variety; stands the Northern winters and Southern summers equal to any. Berries very large, measuring three inches around; conical, rich crimson, very handsome, and so firm they can be shipped hundreds of miles by rail in good condition; flavor is sweet, rich and luscious. The leading market variety.

Hansell. This is the earliest of the Red sorts. Sweet and delicious; a good bearer.

Shaffer's Colossal. An immense Raspberry, both in cane and fruit, and especially adapted to the South. Canes are of wonderful vigor and size, hardy and enormously productive; berries are very large, of a dull, purplish, unattractive color, rather soft, but a luscious and of a rich, sprightly flavor. While its color and lack of firmness render it unfit for market purposes, it is unrivaled for family use and is one of the best for canning. Late.

Turner. The Turner is valuable on account of its early ripening and fine quality. It is full medium size and of fine red color. The bush is very hardy, standing uninjured where many varieties have winter-killed outright.



TURNER.

YELLOW.

Golden Queen. This may be termed a golden Cuthbert, as it is a seedling or sport of that popular variety. Its leading characteristics are large size, great beauty, high quality, hardiness and productiveness. This superb new Raspberry is destined to more than fill the place of that old luscious yellow Raspberry, Brinkle's Orange, as it gives us the same handsome, large golden berries without the nursing and care the Brinkel required to bring the canes through the winter. The canes are of the strongest growth. It is wonderfully productive, ripening in mid-season, and will be planted extensively for market, and no home garden should be without it.

BLACKBERRIES.

Blackberries should be planted in rows six to seven feet apart, three to five feet in the rows. Keep the ground light and rich. Pinch the canes back when they have reached four feet in height.

Agawam. Fruit of fair size, jet black, sweet, tender and melting to the very core; for home use it has no superior, being sweet throughout as soon as black; it is extremely hardy and healthy and very productive. An eminent small fruit grower says: "It stands at the head for hardiness, fruitfulness and sweetness." No fruit garden should be without this excellent variety.

Ancient Briton. Brought from Wales; has gradually risen in public esti-

mation upon its own merits to the highest place as a profitable and valuable berry. The plant is very vigorous and healthy and extremely hardy; the fruit stems are large and profusely loaded with immense luscious berries. Brings the highest price in the market, stands the severe winters of Wisconsin, and is, we consider, the best hardy market variety.

Early Harvest. One of the earliest Blackberries in cultivation; a compact dwarf grower; fruit medium size and fine quality; an enormous bearer. It is so early and bears so well, eats so well, ships so well and sells so well that it is of very notable value to a large portion of our country. Not perfectly hardy here and in this latitude and further north needs protection during the winter.



ANCIENT BRITON.

Erie. One of the best hardy varieties, having stood unharmed a temperature of 25 degrees below zero; as vigorous as Kittatinny; very productive, not having failed in producing a fine crop each year since it originated; foliage clean and healthy, free from rust; fruit large, round in form, giving it the appearance of being even larger than it really is; good quality; ripens between Early Harvest and Wilson Junior.



ERIE.

Kittatinny. Commences to ripen after the Wilson's Early, and continues longer in bearing; is ripe as soon as black, and much earlier, sweeter and better in every respect than the Lawton. One of the best.

Taylor. One of the largest Blackberries grown. Fruit of the best quality, melting, and without core; productive; hardy as the Snyder, which renders it very valuable.

Snyder. Extremely hardy, enormously productive; medium size, no hard, sour core; sweet and melting. The most popular variety where hardiness is a consideration.

Wilson's Early. Of good size, very early, beautiful dark color, of sweet, excellent flavor, and very productive. Ripens the whole crop nearly together.



TAYLOR.

DEWBERRIES.

Lucretia. In earliness, size and quality, it equals any of the tall-growing sorts; the plant is perfectly hardy, healthy, and remarkably productive, with very large, showy flowers. The fruit, which ripens early, is soft, sweet and luscious throughout with no hard core; ripe before late raspberries are gone. Should be mulched to keep berries from ground. The most profitable small fruit we cultivate.

GOOSEBERRIES.

This fruit requires the same cultivation as the currant. The surest method to prevent mildew, is to plant thickly in the rows, and mulch deeply with six or more inches of straw, tan-bark, coal ashes, etc. The price is highly remunerative, and the demand is yearly increasing. The

American varieties are not subject to mildew. Where parties have, for a series of years, mulched gooseberries and currants with coal ashes, they have suffered nothing from the worm or mildew. In mulching be sure the ground is well under-drained, or it is worse than useless. Good cultivation is better than half mulching. Put it on thick. In a dry season the extra amount of fruit will doubly pay for the material used, not to speak of the saving of labor and cleanliness of the fruit.



DOWNING.

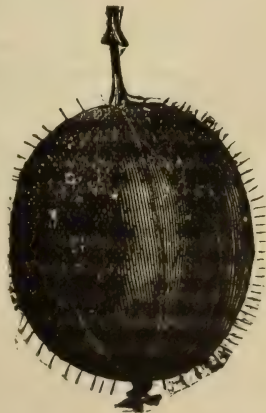
AMERICAN VARIETIES.

Downing. Very large, handsome, pale green, and of splendid quality for both cooking and table use; bush a vigorous grower, and usually free from mildew. One of the best for both home use and market.

Houghton's Seedling. Is small to medium; roundish oval; pale red, sweet, tender, very good; plants spreading; shoots tender; enormously productive.

Smith's Improved. Large, pale greenish yellow, skin thin, of excellent quality, being unsurpassed by any other variety for table use or cooking; bush moderately vigorous and is excessively productive.

Industry. This is the largest and one of the best English sorts. Fruit very large, red, and covered with soft stickers. A good bearer.



INDUSTRY.

CURRENTS.

This fruit comes partly with the raspberry, but follows it for several weeks. Indeed, none of the small fruits will remain so long upon the bushes without injury as the Currant, and since the introduction of the newer varieties, and the easy method of destroying the currant worm by the use of powdered white hellebore (*Veratum Album*), the Currant is attracting more notice than ever before. If remuneration be the object with fruit growers, we certainly have it here. From recent minutes of the Geneva Horticultural Society, it appears that Rev. Dr. Cannon, of Geneva, from one-sixteenth of an acre, sold fifteen bushels besides what he appropriated for family use.

Set four feet apart in rich ground. To cultivate successfully at the West, in our hot suns, they should be planted on the north side of a fence or buildings where they will be partially shaded, and where cultivated in open ground, very heavily mulched with coarse manure, straw or litter. Always plant on a northern exposure, if possible, in well-drained but moist soil. Prune out old wood, so that each remaining shoot will have room to grow. If the currant worm appears, dust with hellebore every three weeks. Manure freely.

Crandall. A black seedling of the western wild Currant. Distinct from the European black varieties and without their strong odor. Wonderfully productive, a strong, vigorous grower, usually producing a crop the next year after planting; large size, one-half to three-quarters of an inch in diameter; easily picked; can be shipped farther and kept longer than any other small fruit. Free from all attacks of insect enemies.



Cherry. Berries sometimes more than half an inch in diameter; bunches short, plant very vigorous and productive when grown on good soils and well cultivated.

Fay's Prolific. Has been cultivated for some years along side all of the best and most popular varieties, and has sustained all claims that were made for it by the originator, which were, as large as Cherry, berries much more uniform, with larger stems, and fruit less acid, and far more productive. Is fast taking the place of Cherry and La Versailles, both for home use and for market.

La Versailles. Very large, red; bunch long, of great beauty and excellent quality; one of the finest and best, and should be in every collection.

North Star. New. From Minnesota, and claimed to be perfectly adapted to the climate of the Northwest. Large, strong grower, productive, bunches large, long and fine in quality. In the vicinity of Springfield, Missouri, this variety is proving to be the most valuable of any yet tried, and is bearing well.

These are the claims of the North Star: Extreme hardiness, strongest grower, longest bunches, abundant fruiting, grows freely from layers or cuttings. Fruit fine flavor, sweet, rich and firm; good market berry.

Red Dutch. An old variety; excellent and well known.

White Dutch. An excellent and well-known sort.

White Grape. Very large, yellowish white, sweet, or very mild acid; excellent quality and valuable for the table. The finest of the white sorts. Very distinct from White Dutch, having a low, spreading habit, and dark green foliage. Very productive.

RHUBARB, OR PIE PLANT.

This deserves to be ranked among the best early vegetables in the garden. It affords the earliest material for pies and tarts, continues long in use, and is valuable for canning. Make the border very rich and deep.

Linnæus. Large, early, tender and fine. The very best of all.

Victoria. Immensely large, broad stalks; rather coarse but good.

ASPARAGUS.

This is a favorite vegetable with nearly all. Secure plants one or two years old; transplant them into permanent beds. Set them 15 inches apart each way and cover 4 inches deep. For marketing on a large scale, set 4 feet apart one way, and 1½ feet the other. This will allow the use of a cultivator to keep the weeds down. Manure plentifully each fall, to be forked in very early in the spring, after which sow on a good dressing of salt.

Conover's Colossal. A standard variety of large size, tender, and of excellent quality.

Palmetto. An improvement on Conover's in that it yields a much heavier crop, fully as large, and of much more even and regular size. It is fit for use nearly a week before the Conover. A very valuable variety for market gardeners.

MISCELLANEOUS FRUITS.



DOWNING'S EVER-BEARING MULBERRY.

Almonds. Hard Shell.

Chestnuts. Common American Sweet.

Horse Chestnut. Valuable as an ornamental tree; beautiful, round, compact head; attractive foliage and flower.

Mulberries. AMERICAN BLACK. Fine fruit and handsome shade tree.

Mulberries. DOWNING'S EVER-BEARING. Very large, handsome, sweet, rich and excellent.

Mulberries. RUSSIAN. Very hardy, vigorous grower; valuable for feeding silk worms, etc. Fruit of small size, varies in color from white to black.

Walnuts. AMERICAN BLACK. AMERICAN WHITE, or BUTTERNUT.

Ornamental Department.

GENERAL REMARKS.

We are just beginning to appreciate the value and importance of planting Ornamental Trees, Shrubs and Plants, Evergreen and Deciduous Hedges for lawns and yards, and screens for the protection of our orchards and gardens, and yet we have scarcely begun to realize the commercial value of such an investment to our homes. We know a keen, sagacious business man in one of our large cities, who has operated for years past in the following manner: He buys a tract of land in the suburbs of the city, cuts it up into liberal sized building lots, drives stakes for a house, and immediately plants the ground with fruit and ornamental trees, shrubs and hedges. He then employs a good man to care for them, and does not offer the lots for sale for two or three years, well knowing that the increasing value of the property will pay him good interest on the investment. When a purchaser goes to look at the property, he finds that when his house is built, he has, instead of a naked house on a bare lot, a neat and beautiful home, with its growing trees and plants, which it would have taken him years to get around him. Many of our most active business men are also men of taste, and would be glad to improve and beautify their grounds, but they are so occupied with business that they have neither the time nor disposition to find out what they want, or to lay out their grounds. Some competent man can generally be found to aid in this matter.

HOW TO PLANT.

Flower gardens and gravelled walks are beautiful, but expensive, and require constant labor to keep them in order. Grass and trees are always charming, and need but little care. In the laying out and planting of grounds, have regard to economy of labor. Let there be as few walks as possible; cut your flower beds (not many) in the turf; and don't make your lawn a checker board of trees and shrubs. Mass them on the boundary lines or in groups, leaving a broad expanse of green for the eye to rest on, and the mower to sweep freely over. If an unpleasant object is in sight, conceal it by planting free-growing trees; if there is a pretty view, leave an opening. While it is not well to have large trees near the house, there should at least be one by the sunny corner, for summer shade. Plant flowering shrubs and the smaller evergreens in circles or ovals, and twice as thick as they should stand when fully grown. This will make a show at

once, and in two years or more you can take out one-half, leaving the rest to fill up the space, and obtaining a supply of finely rooted plants to set somewhere else. Keep the shrubs and trees cultivated or mulched the first two seasons, and then let the turf grow about them. Mow the grass frequently, and top-dress with fine manure every fall and winter.

Straggling growers, like the Forsythia and *Pyrus Japonica*, should be repeatedly pinched back or clipped during the growing season, to produce a close, compact growth. Weigelas and Deutzias should be pruned like currants, leaving the strong young wood to flower. Altheas, and some of the Spireas which bloom on the new shoots, may be pruned back each year to the old wood. A very beautiful hedge can be made by intermingling different flowering shrubs and clipping, or allowing them to grow naturally.

HARDY ORNAMENTAL FLOWERING SHRUBS.

Althea, or Rose of Sharon. A fine, large, showy shrub of the easiest cultivation, blooming freely throughout July, August and September, when scarcely any other shrub or tree is in blossom; not stopping for hot, dry weather. We offer the following and other choice named varieties, all double, unless otherwise noted.

Althea, Alba Plena. Double white.

Althea, Anemone-Flowered. Deep red, fine. Inner petals shorter.

Althea, Ardens. Bluish purple.

Althea, Ball of Fire. Large, very double, well-formed flowers, beautiful violet red; one of the best.

Althea, Banner. A fine new variety; bluish white, penciled and mottled with red.

Almond. Dwarf, double flowering; among the earliest and loveliest flowers of spring; white, and pink.



SYRINGA, OR MOCK ORANGE (PHILADELPHUS).

Berberry, Purple. A beautiful shrub, with violet purple foliage and clusters of fine red berries.

Cala Canthus, Sweet Scented Shrub. The wood is fragrant, foliage rich, flowers of rare chocolate color, having a peculiar, pleasant odor. They blossom in June, and at intervals afterwards.

Deutzias. Comparatively new, thrifty shrubs, from Japan, growing five to eight feet high, and covered in early summer with a great profusion of bloom. Ellwanger & Barry say they are the most beautiful and deservedly the most popular flowering shrubs of the present time. James Vick says: "In every respect the most desirable hardy shrub in cultivation. The first time we saw this plant in flower, we thought it the prettiest shrub in existence." Flowers in clusters. The pure white varieties are much used in cemetery planting.

Forsythia, Golden Bell. One of the best early flowering shrubs. Bloom is drooping, yellow, and appears very early in the spring, before the leaves.

Honeysuckle, Upright or Tartarian. One of the handsomest and most desirable shrubs in cultivation. Its delicate, sweet-scented flowers, borne very early and in great abundance, followed by bright berries, together with its neat foliage and habit of growth, make it a universal favorite.

Hydrangea, Panaculata Grandiflora. A fine shrub, growing eight to ten feet high; flowers white, changing to pink, in great pyramidal panicles a foot long, and produced in great abundance in August and September. Hardy and valuable.

Lilac, Prince Camille De Rouen. Very distinct, reddish flowers; panicles of large size and very abundant, blooms early in May.

Lilac, Persian. Small foliage, bright purple flowers.

Lilac, White. Very large, pure white trusses.

Mock Orange, or Syringa, Philadelphus. One of the most useful and popular flowering shrubs; hardy as an oak, very vigorous, soon forming bushes six to ten feet high, and covered for weeks in spring with large, snow white flowers, many of them deliciously fragrant.

Pyrus Japonica, or Red Flowering Japan Quince. One of the earliest and most showy of spring flowering shrubs. A blaze of red bloom for weeks. Often used as an ornamental hedge, for which it is one of the best and most suitable.

Purple Fringe, or Smoke Tree. Much admired for its curious fringe-like flowers that cover the whole plant, giving the appearance of dense foliage.

Snowball. A popular shrub of large size; with large spherical clusters of snow white balls of blooms in June.

Spirea, or Meadow Sweet. A large family of very hardy shrubs, of neat foliage and habit of growth, and of easiest culture, growing in any soil or situation. Blooming one after another, they give a variety of colors, and a profusion of beautiful flowers from earliest spring till late in the summer. In addition to the well known older sorts, our collection embraces several new varieties of great merit.

Spirea, Billardi. Strong, upright grower, with long terminal spikes of rose colored flowers, which it retains all summer.

Spirea, Bridal Wreath Prunifolia. A strong growing, handsome shrub with pure white double flowers in May and June, foliage small, oval, glossy and of handsome dark green; very desirable.

Spirea, Callosa Alba. Dwarf, white, almost constantly in bloom.

Spirea, Thunbergii. A handsome, neat growing shrub with very light, airy foliage; flowers white; earliest of all.

Weigela. Fine hardy shrubs from Japan; a mass of bloom in early Summer.

Weigela, Rosea. Lovely pink, changing to rose; one of the best.

Weigela, Variegated Leaved. Leaves bordered white. Lovely light pink flowers in wonderful profusion.

CLIMBING VINES.

Ampelopsis, Quinquefolia. Virginia Creeper. Our well-known woodbine. Strong grower.

Ampelopsis, Veitchii. Japan Ivy, or Boston Ivy. Foliage three-lobed, glossy, overlapping each other and forming a dense sheet of green. When once rooted it grows rapidly, and climbs with its air roots like the English Ivy. In the fall it is a flame of crimson of all shades. Very desirable.

Bignonia, Grandiflora. Trumpet Flower. Leaves thick and shiny, and immense blossoms of gorgeous crimson and yellow color.

Clematis. Large flowering kinds: **Henryi.** Pure white, very fine. **Jackmanii.** Rich, dark purple; good grower and free bloomer; one of the most popular. **Standishii.** Dark purple, fine. And other popular kinds.

Clematis, Flammula. Virgin's Bower. Flowers in masses, small, white, and very fragrant. A very strong-growing vine, especially valuable for covering trellises or other objects.

Honeysuckles, Halleana. Hall's Japan Evergreen. An almost evergreen Honeysuckle of the greatest value, being entirely hardy, and of strong, vigorous growth. The flowers are exceedingly fragrant, of pure white, changing to yellow, and are produced in profusion from May to December. One of the best.

Honeysuckles, Japan Golden. A beautiful variety, of moderate growth, with foliage exquisitely veined or netted with golden yellow lines. Flowers large and peach colored.

Wisteria, Sinensis. Chinese Blue. Exceedingly rapid grower and profuse bloomer. The flowers are of a pale blue color and are borne in pendulous racemes in May and June.

Wisteria, Sinensis Alba. Chinese White. Very similar to the Blue, except the flowers are white and remain somewhat longer.

ROSES.

HOW TO GROW.

In selecting a spot to plant your Roses, choose one where they will have full sunlight all day, if possible, and never near large trees or in shady situations, as the Rose delights in a sunny, airy position. Roses are very partial to a clay loam soil, but will do well in any ordinary soil if well enriched with well-rotted barnyard manure. In preparing the bed dig it up thoroughly to the depth of twelve or fifteen inches, as the Rose roots penetrate deep when they have a chance. In forming the beds do not elevate them above the level of the ground surrounding, as they will suffer less from drouth. After the plants have been set out, keep the soil loose to the depth of an inch or two by frequent stirrings. An occasional soaking with weak manure water is a great help to them.

PROTECTION.

The tender *ever-blooming* class may be protected during the winter in the following manner: First cut out all of the soft or unripened wood and remove most of the leaves; then take a little soil from one side of the bush to allow it to bend over easily. Bend it over to the ground and cover the whole plant with two to four inches of earth. Over this place four to six inches of leaves, and keep in place with boards or boughs. Defer covering for winter until cold weather fairly sets in, as moderate freezing will not injure them. Treated in this way, three winters out of four they will go through unharmed.

HYBRID PERPETUAL 'ROSES.

Anna de Diesbach (Glory of Paris). Brilliant crimson, sometimes shaded with bright maroon, long, pointed buds, and large, finely formed compact flowers, very full and sweet. One of the best.

Coquette des Blanches. One of the finest whites. Large, full and fragrant.

Coquette des Alps. A lovely pure white Rose. Very full and free in flower; delicious fragrance.

Duchess de Morny. A charming Rose, large double flowers of the richest bright red. Extra fine.

General Jacqueminot. A rich, velvety crimson, changing to scarlet crimson. A magnificent Rose, equally good in the bud state or open. This is the best known of all Hybrid Perpetuals, and is without a rival in fragrance and richness of color. It is, moreover, as easy of cultivation as many of the more common varieties, and perfectly hardy.

Giant of Battles. Brilliant crimson, large, very double and sweet. Esteemed one of the finest.

General Washington. Rosy carmine, unusually glossy and brilliant, well-formed and double.

La Reine. Beautiful, clear, bright Rose, fine, full form, very fragrant. It is well named "The Queen."



MADAME CHARLES WOOD.

Madame Charles Wood. One of the best roses for general planting ever introduced. The flower is extra large, full and double. Color a deep, rosy crimson, sometimes a brilliant scarlet, with maroon shading.

Magna Charta. A splendid sort. A bright, clear pink, flushed with violet crimson, and very sweet. The flower is extra large, fine form, very double and full. A free bloomer.

Madame Masson. Large and double, color a reddish crimson, of fine form and substance. Invaluable for bedding purposes.

Madame Plantier. Pure white, large and very double. A good hardy Rose, suitable for cemetery planting.

Paul Neyron. The flowers are immense. It is probably the largest Rose grown, and one of the finest. Bright, shining pink, very clear and beautiful, very double, full, and finely scented.

Prince Camille de Rohan. One of the darkest colored Roses; very dark velvety crimson, changing to intense maroon. There is no Rose in all this collection that attracts more favorable comment than this one. A very prolific bloomer and the blooms are of excellent form and size.

Vick's Caprice. By far the best striped hardy Rose. The flowers are large, and bud and flower are perfect in form; color, soft, satiny pink, distinctly striped carmine. Excellent for cutting.

HYBRID TEA ROSES.

Hermosa (Bourbon). An old variety; very double and perfect; color delicate rose; a very abundant bloomer.

Meteor. A reliable ever-bloomer of the deepest glowing crimson. Flowers very double, and petals slightly recurved. A beautiful open rose, a

vigorous grower and very fine bloomer. A grand rose in this climate.

Souvenir de Wootton. A brilliant rose; color magenta red, shaded violet-crimson; flowers large, full and regular, with thick, leathery petals, and delicious tea scent; makes beautiful buds.

TEA ROSES.

Bridesmaid. A sport from Catherine Mermet. This new variety has all the good qualities of its parent, but is of a deeper shade of clear bright pink and is a more constant bloomer.

Duchesse de Brabant. Brilliant rosy pink; globular; standard tea. In every way a charming rose.

Marie Van Houtte. Canary yellow; the border of the petals tipped with bright rose; large, full and fine form; a most charming sort and one of the best of its class.

Sunset. A fine novelty, a sport from Perle des Jardins, which it strongly resembles except in color, which is a remarkable shade of rich golden amber, elegantly tinged and shaded with dark ruddy copper, intensely beautiful, and resembling in color a splendid "after glow." Very fragrant.

The Bride. A sport of Catherine Mermet. Pure white, large fine form, very fragrant; free bloomer; buds very full and double. A beautiful rose, and should have a place in every collection.

MOSS ROSES.



HENRI MARTIN.

Henri Martin. This is a magnificent Rose. The flowers are extra large and very double. The color is a deep, rosy carmine.

Glory of Mosses. The best of all the colored Moss Roses. Flower bright pink, tinged with crimson. Large and globular.

Princess Adelaide. A fine, bright carmine. Large and fine. Very mossy.

Caroline de Murinais. Flowers white, large, double, cupped buds, heavily mossed. Extra fine.

HARDY CLIMBING ROSES.

These, for their hardiness and profusion of flowers, recommend themselves to all lovers of the beautiful. They are admirably adapted to cover arbors, walls, and any unsightly objects, and are always ornamental in any situation.



BALTIMORE BELLE.

Baltimore Belle. Pale blush, nearly white; very double. Flowers in large clusters, the whole plant appearing a perfect mass of bloom.

Cloth of Gold. Deep yellow center, edges sulphur, very sweet scented; a magnificent variety.

Crimson Rambler. One of the grandest hardy roses ever introduced. Flowers are glowing crimson, produced in immense panicles, some of which have measured nine inches long and seven inches across, covering the plant from the ground to tips of branches.

Gem of The Prairies. Flowers large and double, light crimson, sometimes blotched white.

Lamarque. Pure white, with shaded sulphur-yellow center; a magnificent climber and a most popular Rose.

Prairie Queen. Bright, rosy red; large, compact and globular flower; blooms in clusters; one of the best.

Persian Yellow. The finest hardy yellow Rose grown; deep golden yellow; semi-double. Blooms very freely in June. Hardy anywhere.

Pink Rambler. Flower clear pink, borne in good sized trusses. Resembles Crimson Rambler in every respect but color.

Seven Sisters. Crimson, changing all shades to white.

White Rambler. A rank grower, having the same habit and characteristics as the Crimson Rambler, except that the flowers are white.

Wichuriana (The Japanese Trailing Rose). This pretty novelty is a most valuable plant for covering embankments, rockeries, etc., and particularly for use in cemeteries. It is a low, trailing species, its stems creeping on the ground almost as closely as the Ivy. Foliage small, dark green, lustrous; flowers are produced in July, are small, single, pure white and very fragrant.

HARDY AND ORNAMENTAL GRASSES.

Erianthus. The hardy Pampas Grass. Growing eight to twelve feet high, with handsome plumes; it is the most stately and showy of hardy grasses.

Eulalia Japonica. Grows five to six feet high, forming large clumps, covered with beautiful feathery heads or plumes, unsurpassed for winter bouquets, keeping nice for years.

Ribbon Grass, or Striped Grass (*Phalaris*). A very pretty grass, growing one to two feet high; blades striped, no two alike.

EVERGREENS.

Arbor Vitæ (American). The finest Evergreen for hedges. It grows rapidly and soon forms a most beautiful hedge; very dense. Of course it is never adapted to turn stock, but it forms a most desirable and ornamental screen to divide the lawn from other parts of the grounds, or any other purpose.

Arbor Vitæ (*Pyramidalis*). An exceedingly beautiful, bright variety, resembling the Irish Juniper in form; foliage deep green; color well retained in Winter; perfectly hardy. This Evergreen should have a place in every collection.

Arbor Vitæ (Siberian). A superb variety, somewhat similar to American, with heavier and fuller foliage and more compact in habit. It holds its color during winter, and bears trimming well; is valuable for low hedging and single specimens.

Box Tree. A fine, small Evergreen, with pale green leaves. Can be trained in any desirable form by shearing.



AMERICAN ARBOR VITÆ.



IRISH JUNIPER.

ing tree, with stout, erect shoots and silver-green foliage.

White (Strobus). The most ornamental of all our native Pine. Foliage light, delicate or silvery green; flourishes in the poorest soils.

Spruce (Norway). A lofty, elegant tree of perfect pyramidal habit, remarkably elegant and rich; as it gets age it has fine, pendulous branches; it is exceedingly picturesque and beautiful. Very popular and deservedly so, and should be largely planted. One of the best Evergreens for hedges.

Spruce (Hemlock or Weeping). An elegant pyramidal tree with drooping branches and delicate, dark foliage. It is a beautiful lawn tree and makes a highly ornamental hedge.

Fir (Balsam or American Silver). A very regular, symmetrical tree, assuming the conical form even when young; leaves dark green above, silvery beneath.

Juniper (Irish). Erect and formal in habit; foliage deep green and very compact, making a splendid column, sometimes 15 to 20 feet high; much used in cemeteries.

Juniper (Virginica). Red Cedar. A well known American tree, with deep green foliage; makes a fine ornamental hedge plant.

Juniper (Swedish). Not quite so erect in growth as the Irish; foliage light yellowish-green. It attains a height of 10 or 15 feet; perfectly hardy.

Austrian, or Black (Austriaca). A remarkably robust, hardy, spreading tree; leaves long, stiff and dark green; growth rapid; valuable for this country.

Dwarf, or Mountain (Pumila). A low, spreading, curious species, attaining only the size of a bush; foliage similar to that of the Scotch, but livelier; green; one of the best.

Scotch (Sylvestris). A fine, robust, rapidly grow-



NORWAY SPRUCE.

DECIDUOUS TREES.

SHADE AND ORNAMENTAL.

Ailanthus, or Tree of Heaven. A very handsome ornamental tree, having been introduced in this country from China many years ago, yet it is unknown in many parts. It is a very rapid grower, perfectly hardy in all parts, succeeding in all soils, and growing six to ten feet high with very stout stem the first summer, with magnificent leaves five to six feet long, giving a good tropical appearance. In China it is known as the Tree of Heaven, a name suggested by its majestic form and great beauty. The trees grow to a good height and bear in great profusion large panicles of bloom.

Ash, American White (Americana). A fine, lofty tree, with handsome round head.

Beech, Purple. A native of Germany; an elegant, vigorous tree, growing to 40 or 50 feet, or can be shorn and kept in compact ball. Foliage in Spring is deep purple, and later in season changes to crimson. Very conspicuous.

Birch, Cut Leaf Weeping. Tall, slender, graceful, drooping branches, silvery white bark and delicately cut foliage. Conspicuous and desirable.

Birch, White. Handsome tree with white bark.

Box Elder. One of the most beautiful yard and lawn trees. Light green foliage; rapid growth, and very hardy.

Catalpa. Is a rapid growing tree of tropical appearance, flowering in July. The blossoms are large, very showy and quite fragrant; leaves very large, heart-shaped, yellowish green.

Catalpa, Speciosa. A magnificent variety; very hardy; blooming very young; very desirable.

Elm, American. A noble spreading and drooping tree; rapid grower.

Linden, American. A rapid growing, large sized, handsome tree, with very large leaves.

Locust. A moderately rapid growing tree; blossoms very handsome and fragrant; wood very durable and valuable.

Larch, European (Europæa). An excellent, rapid growing, pyramidal tree; valuable for timber. Small branches drooping.

Magnolia, Cucumber Tree (Acuminata). A noble, beautiful tree, with very large leaves and yellow flowers, tinted with bluish purple.

Magnolia, Umbrella Tree (Umbrella). A small sized tree, with immense leaves and large white flowers, four to six inches in diameter.

Glauc. A handsome small tree; nearly evergreen, with beautiful dark green, glossy leaves and milk-white flowers in summer, possessing a wonderful and delicious fragrance, making it a favorite wherever known. Extremely hardy, growing wild as far north as Boston, and safe to transplant.

Maple, Norway. A large, handsome tree of spreading rounded form, with broad, deep green, shining leaves; very compact, stout and vigorous growth; very ornamental.

Maple, Sugar or Rock. Of elegant pyramidal form, stately growth, beautiful foliage, turning to brilliant colors in Fall, desirable for lawn or street.

Maple, Silver. Of rapid growth, easily transplanted, and attaining large size and immediate shade; popular for street planting.

Mountain Ash, European (*Aucuparia*). A fine, hardy tree; head dense and regular, covered from July till Winter with large clusters of bright scarlet berries.

Mountain Ash, American (*Americana*). A tree of coarser growth and foliage, and larger and brighter colored berries.

Mountain Ash, Oak-Leaved (*Quercifolia*). A variety with large, hoary-lobed leaves; distinct and fine.

Tulip Tree (*Liriodendron Tulipifera*). A magnificent native tree, with broad, glossy, fiddle-shaped leaves, and beautiful tulip-like flowers. Somewhat difficult to transplant.

WEeping TREES.

Teas' Weeping Russian Mulberry. This fine new weeper originated in our own nursery here a few years ago. It soon attracted attention by its peculiar growth, and we began to propagate it. It has now been tested by thousands of lovers of beautiful and rare trees, in all parts of the country, and in Europe, and we believe the verdict is unanimous: "The best of all hardy Weeping Trees."

It has beautiful glossy foliage on very slender, drooping branches, forming the most graceful curves and outlines. Being a true Russian Mulberry, it is very hardy, vigorous and long-lived; transplants readily, and endures extremes of heat, cold and drouth, better than any other desirable weeper. The trees we offer for sale have been grafted from the original tree, upon upright stems, usually four to five feet above the ground.

American Weeping Willow (*Americana Pendula*). An American dwarf, slender branched species; grafted five or six feet high, it makes one of the most ornamental of small weeping trees.

Kilmarnock Weeping Willow (*Caprea Pendula*.) An exceedingly graceful tree, with large, glossy leaves; one of the finest of this class; very hardy.

Wisconsin Weeping Willow. Branches more slender than the American; perfectly hardy; one of the best.

